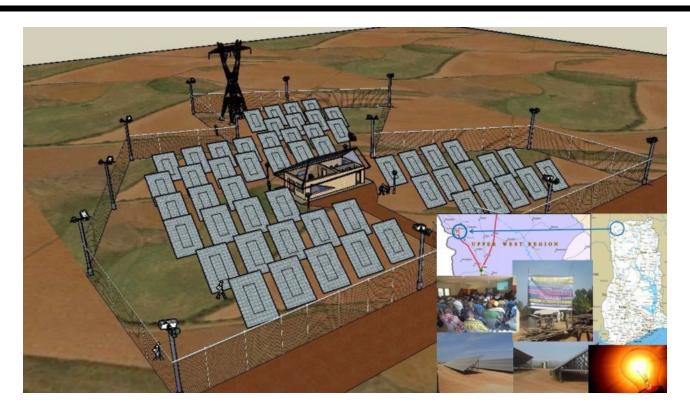
35MW Solar Power Project: Upper West Regional Project Sites



Stakeholder Engagement Plan



JANUARY 2020

CORPORATE ENVIRONMENTAL POLICY STATEMENT

The Volta River Authority (herein referred to as "the Authority") is a public power utility and supplies electricity to industries and mining companies as well as distribution companies in Ghana. The Authority commits to ensuring continuous improvement of environmental performance that minimizes potential impacts of all its operations on the environment in accordance with the principles of sustainable development and complying with national and international environmental protection regulations.

In respect of the above, VRA will:

- Make environmental considerations a priority in all business planning and decision-making and comply with relevant national and international environmental protection regulations.
- 2. Take reasonable steps to mitigate the impact of its actions with regard to the development, operation and management of its assets.

VRA will thus pursue the following specific objectives:

- Develop and implement Environmental Management Systems for all its business units to:
 - Assess environmental impact of processes, operations and products.
 - ii. Focus on pollution prevention and waste reduction.
 - Ensure compliance with national/international environmental protection regulations. iii.
 - Set annual environmental targets to ensure continuous improvements. iv.
 - Monitor and report on environmental performance as required to the appropriate V stakeholders.
- Ensure minimum environmental impact of VRA's projects and take adequate steps to b. mitigate any such anticipated adverse impacts as far as is practicable.
- C. Promote environmental awareness and individual sense of responsibility among its employees through print material for distribution, safety meetings, and the corporate website which will continue to be updated, and provide adequate empowerment and training for personnel to perform environmental jobs satisfactorily.
- Support research efforts on materials, products, processes and pollution reduction d techniques that are directly related to its operations.
- Contribute to the development of public policy and programmes that enhance environmental e. awareness and protection.
- f. Promote open communication on environmental issues.
- g. Undertake projects and programmes in collaboration with relevant agencies to preserve the Volta Lake resource, and reasonably restore/mitigate ecological imbalance caused by the creation of the lake.
- Undertake projects and programmes to mitigate the impact on the livelihood of individuals h. and communities displaced or affected by VRA's developmental projects.

VRA shall design evaluation procedures for all processes that fall under this policy to ensure that these processes comply. Deficiencies, in the policy or in the evaluation procedure, shall be addressed as required. Each employee of VRA is charged to exercise his or her responsibility on behalf of VRA to assure that the intentions of this Policy Statement are diligently carried out.

Approved: ...

Emmanuel Antwi-Darkwa

CHIEF EXECUTIVE

Date: 18 - 6 - 2019

REPORT DETAILS

Title:	Stakeholder Engagement Plan (SEP) for the proposed 35MW Solar Power Project: Upper West Regional Project Sites			
Report Description:	This SEP forms part of a series of reports and information sources that are being provided under the Environmental Impact Assessment (EIA) process for the proposed 35MW Solar Power Project: Upper West Regional Project Sites			
	The EIA is a process designed to ensure that new developments, and extensions to existing developments, are located and designed in such a way as to minimise environmental impact. and that all concerns are addressed as a project gains momentum through to implementation.			
	Specifically, the SEP seeks to define the level of stakeholder engagements, public information disclosure and consultation process, including grievance mechanism and feedback process, that will be implemented as part of the project.			
Prepared by and for:	Environment & Sustainable Development Department, Volta River Authority Electro Volta House, 28 Th February Road P. O. Box MB 77, Accra Digital Address: GA-145-7445 Tel No: +233-302-664941-9 WhatsApp: +233-501-620439 Email: desd@vra.com Web: www.vra.com			
SEP Authors:	Environment & Sustainable Development Department, VRA			
Lead Author	Ben A. Sackey			
Specialist Authors:	Godfred Ofosu-Asare, Ebenezer Antwi, Lloyd Kofi Sutherland, Baffo Blankson, Frederic Kyei-Dompreh, Kofi Orstin, Linus Abenney-Mickson, Khalilu-lahi Abdulai and Lawrence Addipa			
Mapping:	Engineering Services Department, VRA			
Date:	January 2020			

iii | Page Jan. 2020

DOCUMENT CONTROL SHEET

REPORT TITLE:

35MW Solar Power Project: Upper West Regional Project Sites – Stakeholder Engagement Plan

DATE: JANUARY 2020

REPORT STATUS: FINAL

PROPONENT: VOLTA RIVER AUTHORITY

INTERNAL DOCUMENT DISTRIBUTION

No.	Recipient	Organisation	Location
1	Director, Env. & Sustainable Development	Volta River Authority	Akosombo
2	Director, Engineering Services	Volta River Authority	Akuse
3	Director, Real Estates & Security	Volta River Authority	Accra
4	Manager, Environment & Social Impact	Volta River Authority	Akosombo
5	VRA Head Office Library	Volta River Authority	Accra

NOTE:

Hard Copies are held and distributed by the Environment & Sustainable Development Department of VRA. Electronic copies of this report are issued in portable document format and posted on the Corporate website of the Volta River Authority at www.vra.com.

DISCLAIMER

This document, and the opinions, analysis, evaluations, or recommendations contained herein are for the sole use of the contracting parties. There are no intended third-party beneficiaries, and the Volta River Authority shall have no liability whatsoever to third parties for any defect, deficiency, error, omission in any statement contained in or in any way related to this document or the services provided. No part of this publication may be reproduced in any manner without full acknowledgement of the source.

iv | Page Jan. 2020

LIST OF ABBREVIATION

Acronym	Definition
CBOs	Community Based Organisations
CDM	Clean Development Mechanism
CLO	Community Liaison Officer
CSOs	Civil Society Organisations
DCE	District Chief Executive
E&SDD	Environmental and Sustainable Development Department
EHS	Environmental, Health & Safety
EIA	Environmental Impact Assessment
EP	Equator Principle
EPA	Environmental Protection Agency
EPC	Engineering, Procurement and Construction
EPFI	Equator Principle Financial Institutions
ESIA	Environmental and Social Impact Assessment
ESMS	Environmental and Social Management Systems
FSD	Forest Services Division
GRM	Grievance Redress Mechanism
На	Hectares
HIV	Human Immunodeficiency Virus
IFC	International Finance Corporation
KfW	KfW Development Bank
LVD	Land Valuation Division
MW	Mega Watt
NEDCo	Northern Electricity Development Company
NGOs	Non-Governmental Organisations
NTS	Non-Technical Summary
PAPs	Project - Affected Persons
SEP	Stakeholder Engagement Plan
SPP-UWR	Solar Power Project – Upper West Region
STD	Sexually Transmitted Disease
VRA	Volta River Authority

v | Page Jan. 2020

EXECUTIVE SUMMARY

The "35MW Solar Power Project: Upper West Regional Project Sites" (hereinafter referred to either as the "Project") is a solar power project in development, located within Kaleo in the Nadowli-Kaleo District and Lawra in the Lawra Municipal, all in the Upper West Region of Ghana. The project is being developed in two phases by utilizing four (4) separate sites with a total land area of 49.79Ha. The project is being developed by the Volta River Authority (VRA) and is partly financed by the KfW Development Bank (KfW). A Stakeholder Engagement Report, dated Dec. 2017, was prepared in line with the requirements of the Environmental & Social Action Plan developed by KfW following the Environmental and Social Due Diligence review of the Environmental Impact assessment (EIA) Report for the project. KfW has further requested for the preparation of a standalone Stakeholder Engagement Plan (SEP) for the project.

This SEP has therefore been developed in order to guide stakeholder consultations and communications during the development and execution of the Project, while also meeting the requirements of KfW and that of the World Bank Environmental and Social Standards Framework. The overall objective of the SEP is to define a stakeholder engagement, public information disclosure and consultation process that will be implemented as part of the Project by VRA. The national and international regulatory context within which is required for the development of the SEP has been discussed. The project settings of the Kaleo and Lawra sites have been described to show the features and those who could directly be affected by the project and would have to be engaged. The SEP also outlines how the VRA has prioritized the various stakeholder groups and devised appropriate and acceptable approaches to engage them within the life of the Project. The SEP highlights the methods that will be used by VRA to communicate with people and stakeholder groups who may be affected by or interested in the Project operations and activities.

A summary of the various engagements undertaken to ensure that all the identified stakeholders gain a better understanding of the project has been described. A summary of the main inquiries, proposals and concerns raised by the stakeholders during these various community engagements events and the responses provided are outlined. Key participants during the various engagements are also listed. Based on the issues raised at the project briefings during the design and EIA Phases, status quo conditions of the study area and the nature of the proposed development, the key issues of concern that must be considered regarding stakeholder's engagements during project implementation are summarized. To address these, further consultation is planned to refresh the project information and to disclose the mitigation and other management plans upon commencement of constructional activities. Subsequently, activities that are to be undertaken as part of the next steps engagements have been listed.

During the stakeholder engagements, the community members were very keen in benefitting from any social investment programmes of the VRA. There is therefore the need to ensure early implementation the VRA Community Development Programme (CDP). Details of how the CDP is to be implemented has been provided. A grievance mechanism is to be adopted to identify and solve any impacts or problems that were not foreseen at the environmental assessment stage and associated management planning process. The stakeholder engagement activities should be periodically monitored and evaluated and strategies to do this has been outlined. An Environmental based organizational structure of VRA for the constructional and operational phases of the project has been outlined in the Final EIA Report. The chart details the position of key personnel responsible for stakeholder engagement process and play various roles in the environmental and social management implementation.

vi | Page Jan. 2020

TABLE OF CONTENT

REPOR'	T DETAILS	III
LIST OF	F ABBREVIATION	V
EXECU	TIVE SUMMARY	VI
TABLE	OF CONTENT	VII
CHAPT:	ER 1 - INTRODUCTION	1-1
1.1.	BACKGROUND	1-1
1.2.	OBJECTIVES OF THE SEP	
1.3.	STRUCTURE OF THE SEP	1-3
CHAPT	ER 2 - PROJECT DESCRIPTION	2-1
2.1.	Overview	2-1
2.2.	FINANCING DETAILS	
2.3.	VALUATION & COMPENSATION OF PROPERTIES	2-2
CHAPT:	ER 3 - PROJECT SETTING	3-1
3.1.	Kaleo Site	3-1
3.2.	LAWRA SITE	3-2
CHAPT:	ER 4 - REGULATORY CONTEXT FOR STAKHOLDER ENGAGEMENTS	4-1
4.1.	CORPORATE POLICIES	4-1
4.1.		
4.1.	· · · · · · · · · · · · · · · · · · ·	
4.1.	<u>-</u>	
4.1.	.4. Corporate Social Responsibility	4-2
4.1.		
4.1.	.6. Local Content Policy	4-2
	NATIONAL REGULATORY CONTEXT	
4.2.	\mathcal{C}	
4.2.	4-3	
4.3.	INTERNATIONAL REGULATORY CONTEXT	4-4
4.3.		
4.3.		
4.3.	3. Equator Principles	4-5
4.3.	4. World Bank Environmental and Social Standards Framework	4-5
CHAPT	ER 5 - STAKEHOLDER IDENTIFICATION AND ANALYSIS	5-1
5.1.	STAKEHOLDER IDENTIFICATION	5-1
5.1.		
5.1.		
5.1.	· ·	
5.2.	ANALYSIS AND PRIORITIZATION OF STAKEHOLDER GROUPS	5-2
5.3.	STRATEGIES FOR ENGAGING WITH STAKEHOLDERS	5-4
CHAPT:	ER 6 – STATUS OF STAKEHOLDER ENGAGEMENTS	6-1
6.1.	Introduction	
6.2.	ENGAGEMENTS WITH PROPERTY AFFECTED PERSONS	
6.3.	ENGAGEMENTS WITH COMMUNITY MEMBERS	
6.3.		
6.3.		
6.3.	3. Engagement with Traditional Authorities	6-6

6.4.	ENGAGEMENTS STAKEHOLDER STATE AGENCIES	
6.5.	CONSULTATIONS WITH STAKEHOLDERS OF NEIGHBOURING FACILITIES/ACTIVITIES	
6.6.	CONSULTATIONS WITH FOREST SERVICES DIVISION	
6.7.	CONSULTATIONS WITH WATER RESOURCES COMMISSION	
6.8.	CONSULTATIONS WITH ENERGY COMMISSION	
6.9.	CONSULTATIONS WITH GHANA AIRPORTS COMPANY LIMITED	
6.10.	ESTABLISHMENT OF GRIEVANCE COMMITTEES	
	PUBLIC DISCLOSURE	
6.12.	ACQUISITION OF PERMITS & LICENSING	6-13
	ER 7 – STAKEHOLDER ENGAGEMENT PROGRAMME: FUTURE PLANS & METH	
7.1.	INTRODUCTION	
7.2.	KEY ISSUES	
7.3.	EFFECTIVE COMMUNITY ENTRY BY PROJECT CONTRACTORS	
7.4.	EMPLOYMENT FOR COMMUNITY MEMBERS	
7.5.	SOCIAL INVESTMENT PROGRAMME	
7.6. 7.7.	AVAILABILITY OF GRIEVANCE REDRESS MECHANISMLAND ACQUISITION & COMPENSATION	
7.7. 7.8.	RISK TO PUBLIC SAFETY, COMMUNITY HEALTH & SECURITY ISSUES	
7.8. 7.9.	CONTINUED ENGAGEMENT DURING CONSTRUCTION & OPERATIONAL PHASE	
7.9. 7.10.	SPECIFIC CONSULTATION WITH KEY STATE AGENCIES	
	PUBLIC DISCLOSURE	
	EFFECTIVE MONITORING & EVALUATION PROCESS	
	ACQUISITION OF PERMITS	
	ER 8 – SOCIAL INVESTMENT PROGRAMME	
	ER 9 - GRIEVANCE REDRESS MECHANISM	
9.1.	OVERVIEW	9_1
9.2.	ANTICIPATED CATEGORIES OF GRIEVANCES	
9.3.	GRIEVANCE REDRESS PROCESS	
	ER 10 - MONITORING, REPORTING & EVALUATION	
	Monitoring	
	STAKEHOLDER TRACKING AND RESPONSE	
	FEEDBACK MECHANISM	
	REPORTING STAKEHOLDER ENGAGEMENT ACTIVITIES	
	REPORTING TO STAKEHOLDERS	
	EVALUATION & REVIEW	
CHAPT]	ER 11 STAFFING, RESPONSIBILITIES AND CONTACT DETAILS	
11.1.		
	ROLE OF MANAGER, PROJECTS	
	ROLE OF MANAGER, ENVIRONMENT & SOCIAL IMPACT	
	ROLE OF COMMUNITY LIAISON OFFICER	
	ROLE OF PROJECT ENVIRONMENT, HEALTH & SAFETY OFFICER	
11.6.	CONTACT DETAILS	11-2
CHAPT]	ER 12 - CONCLUSION	12-1
List of T		
	-1: 35MW SOLAR POWER PROJECT: UPPER WEST REGIONAL PROJECT SITES	
	-1: GEOGRAPHICAL COORDINATES OF KALEO PV SITES	
TABLE 3 Siti	-2: NEIGHBOURING INFRASTRUCTURE WITHIN THE IMMEDIATE IMPACT AREA OF THE KA	LEO PV 3-2
S1111	HN	3-7

TABLE 3-3: NEIGHBOURING INFRASTRUCTURE WITHIN THE IMMEDIATE IMPACT AREA OF THE LAWR.	a PV
Site	3-3
TABLE 5-1: STRATEGIES FOR ENGAGING STAKEHOLDERS	5-5
TABLE 6-1: LIST OF KEY PROPERTY AFFECTED PERSONS CONSULTED REGARDING ACQUISITION	6-3
TABLE 6-2: PROPOSED GRIEVANCE COMMITTEE MEMBERS	6-11
TABLE 9-1: SAMPLE FORMAT OF GRIEVANCE REGISTER	9-4
TABLE 9-2: SAMPLE FORM FOR ASSESSING GRIEVANCE	9-4
TABLE 10-1: EVALUATION CRITERIA	10-4

APPENDIX

Appendix 1: Project Regulatory Permits

Appendix 2: Figures

Appendix 3: Plates

Appendix 4: Details of Key participants during the Stakeholder Engagements

Appendix 5: Issues & Responses at Community Stakeholder Engagement Events

Appendix 6: Advertisers Announcement of EIA Report for 35MW SPP - UWR

ix | Page Jan. 2020

CHAPTER 1 - INTRODUCTION

1.1. Background

The "35MW Solar Power Project: Upper West Regional Project Sites" (hereinafter referred to either as the "Project") is a solar power project in development, located within Kaleo in the Nadowli-Kaleo District and Lawra in the Lawra Municipal, all in the Upper West Region of Ghana. The project is being developed in two phases by utilizing four (4) separate sites with a total land area of 49.79Ha. The breakdown of the developmental phases and land sizes to be utilized under the project is as shown in Table 1-1. The project is being developed by the Volta River Authority (VRA), a public utility company, established on April 26, 1961 under the Volta River Development Act, 1961 (Act 46) of the Republic of Ghana with the mandate to generate, transmit and distribute electricity and is partly financed by the KfW Development Bank (KfW). Details of the VRA can be accessed on its website www.vra.com.

Table 1-1: 35MW Solar Power Project: Upper West Regional Project Sites

Name	Size (Ha)	Phase 1 (MW)	Phase 2 (MW)	Total (MW)
Kaleo Site 1	10.22	8	0	8
Kaleo Site 2	18.39	0	13	13
Kaleo Site 3	10.18	5	2	7
Lawra	11.00	4	3	7
Total	49.79	17	18	35

Source: "Requirements for modifications of Phase 1 to accommodate Phase 2 (2018)

A Stakeholder Engagement Report, dated Dec. 2017, was prepared in line with the requirements of the Environmental & Social Action Plan developed by KfW following the Environmental and Social Due Diligence review of the Environmental Impact assessment (EIA) Report for the project. KfW has further requested for the preparation of a standalone Stakeholder Engagement Plan (SEP) for the project. This SEP has therefore been developed in order to guide stakeholder consultations and communications during the development and execution of the Project, while also meeting the requirements of KfW and that of the World Bank Environmental and Social Standards Framework.

The SEP outlines how stakeholders have been consulted during the impact assessment process as well as will be informed during the construction and operational phase. During the pre-feasibility and feasibility phases, the main aim of the stakeholder engagement has been to establish two-way communication between VRA and stakeholders at the national, regional and local levels to ensure stakeholder views are incorporated into the EIA Report, the project design and the Feasibility Study. During the ongoing construction and operation phases, stakeholder engagement activities will focus on keeping stakeholders informed and receiving feedback about the project activities and engaging with them in terms of disseminating and discussing information on impacts, mitigation measures, monitoring and environmental management.

1-1 | Page Jan. 2020

Feedback on stakeholder concerns is to be received through a variety of mechanisms, including the community grievance mechanism, and ongoing engagement with communities through formal and informal consultation events and meetings, together with dialogue and information exchange events and focus group meetings at the national level. All concerns raised are registered and tracked by VRA Project Team and addressed through follow up meetings and additional consultation events. Report on stakeholder engagements and feedback on stakeholder concerns and how they have been addresses will be provided annually in the Project Annual Environmental Reports, a requirement of the Ghana Environmental Protection Agency. VRA is fully committed to the integration of environmental and social considerations in the design and development of the Project, as well as establishing and maintaining constructive relationships with all stakeholders, including the Kaleo and Lawra communities and surrounding areas.

1.2. Objectives of the SEP

From a practical perspective, the SEP communicates the approaches used by the VRA to engage with communities and other interested or affected stakeholders. Broadly, VRA seeks to keep stakeholders informed of social and environmental performance of the project, to support capacity building, to promote sustainable development, minimise conflict using a grievance mechanism, and receive feedback from stakeholders, including questions and concerns.

The objectives of the SEP are to:

- Establish and maintain a constructive relationship with a variety of stakeholders over the life of the Project.
- Ensure affected communities and other stakeholders have access to established channels for making inputs and suggestions on actions that could affect their lives.
- Ensure project affected communities and other stakeholders are provided with the
 opportunities and platforms to express their views on the project through a process of
 continuous involvement; whiles establishing mechanisms to provide feedback to them on
 how their contributions were considered.
- Ensure focused and inclusive engagement with men, women, the elderly, youth, displaced persons (where applicable) and vulnerable and disadvantaged persons or groups who are directly affected by the Project.
- Ensure timely disclosure of relevant, transparent, objective, meaningful and easily accessible information which is in a culturally appropriate local language and format that is understandable to affected communities to help them participate meaningfully.
- Establish a mechanism for receiving and addressing grievances in a timely manner with attention to vulnerable groups.

Even though this SEP is a standalone document, it is a follow up to the Stakeholder Engagement Report, dated Dec. 2017, prepared for the project and is also to be supported by the requirements of the Environmental Impact Assessment of 35MW Solar Power Project – Upper West Regional Project Sites, Final Report. September 2019, which is in place to help mitigate various aspects of the environmental and social impacts associated with the implementation of the project. It is

1-2 | Page Jan. 2020

therefore important that the implementation of this SEP is linked to the requirements of the EIA Report.

1.3. Structure of the SEP

The SEP is structured as follows:

Chapter 1: Introduction

Chapter 2: Project Description

Chapter 3: Project Setting

Chapter 4: Regulatory Context for Stakeholder Engagements

Chapter 5: Stakeholder Identification & Analysis

Chapter 6: Status of Stakeholder Engagements

Chapter 7: Stakeholder Engagement Programme: Future Plans & Methods

Chapter 8: Social Investment Programme

Chapter 9: Grievance Redress Mechanism

Chapter 10: Monitoring, Reporting & Evaluation

Chapter 11: Staffing, Responsibilities and Contact Details

Chapter 12: Conclusion

1-3 | Page Jan. 2020

CHAPTER 2 - PROJECT DESCRIPTION

2.1. Overview

As shown in Table 1-1, the 35 MW "Solar Power Project Phase: Upper West Regional Project Sites", is being developed in two phases and utilising land areas within Kaelo and Lawra. Factors considered in site selection included direct solar radiation, sky scattering radiation, and ground reflection radiation. The sunshine in the Upper West Region is enough as the average annual total radiation can reach 7384.3MJ/ m². The proposed selected PV sites areas are therefore rich in sunlight; the total amount of annual solar energy radiation is abundant, and thus very suitable to build PV power plants.

The scope of the project are as follows:

- Feasibility study
- Update of Grid connection and Grid Impact Study
- Environmental Impact Assessment Study
- Licensing and permitting of PV plant
- Competitive Procurement of EPC contractor
- Entering the required Project Implementation Agreements
- Construction and commissioning
- Operations & Maintenance

Developments activities under Phase 1 will allow for relevant modifications and ease of installations for those under Phase 2. An associated 34.5kV sub transmission and water supply systems are to be constructed under both phases. In the case of the Lawra PV plant, the network connection will comprise of the development of a 4.5 km overhead line system integrated into the existing 34.5 kV main corridors' line at Lawra as a Tee-off connection. The substation to be built at Lawra as part of the first phase would have some minor modifications to accept an additional 3 MWp capacity. This includes fencing of the additional land and upgrading the evacuation and communication/control facilities for a total station capacity of 7MWp.

For the Kaleo Sites, an approximately 12.5km overhead line system outgoing from Kaleo PV substation to the 34.5 kV busbar of the Wa GRIDCo Substation will be developed. In order to allow ease of the expansion of Phase I from 12 to 17MW and Phase 2, the general interconnection concept is to extend the Kaleo-Wa MW line to Kaleo Site 3 and for each site to aggregate the PV arrays through a 34.5 kV bus to the MV line. The transmission line is also intended to be upgraded from 23MVA to 30MVA. The Kaleo Site 2 Capacity of 13MW would have a complete Control Room and Substation for evacuation via the Kaleo -Wa MV line. The proposed line is to run parallel to the existing 34.5kV from the Wa GRIDCo to Hamile. Thus, in the case of Lawra and Kaleo Site 3, modifications in network connections needed to allow easy installation of the solar capacity under Phase II would be provided under the Phase I Project.

The development will proceed on a turnkey engineering, procurement and construction basis. Design specifications to be followed during construction are to be in line with both the Ghana

2-1 | Page Jan. 2020

Building Code, 2018 as well as international standards such as the British Standards. Tractebel Engineering (formerly Lahmeyer International GmbH) as the Owner's Engineer for the project is responsible for site verifications, design, specification and all technical aspects of the tender and contracting as well as working as specialist environmental advisors. The services also cover the supervision of the whole construction process and commissioning. The procurement of an EPC Contractor, Elecnor SA of Spain was completed in June 2019 and constructional activities commenced in November 2019. The Lawra Site is expected to take 7 months to complete whilst that of Kaleo will take 15 months. Depending on the timing of financial closure, project construction for both phases at the various sites may run concurrently to achieve the total of the 35MW PV power plants. The construction schedule has been created according to FIDIC contract standards and is deemed suitable for both projects. It must be noted however, that the construction time of this type of projects is largely based on the logistics and the manpower of the EPC contractor.

Elecnor SA has provided a Health & Safety Plan, an Environmental Protection Plan as well as a Quality Assurance Plan as part of the contract documentations. These obligations notwithstanding, Elecnor SA is to implement all measures necessary to restore the sites to acceptable standards and abide by environmental performance indicators specified in the EIA Report to measure progress towards achieving objectives during execution or upon completion of any works. In line with the VRA Local Content Policy, the Contractor is required to have a local component. All contractors for the project shall assume full professional liabilities regarding fulfilment of any statutory requirements and shall be expected to carry out all civil based works in line with VRA approved specifications and drawings as well as national/international standards and codes.

The programme for the sub-transmission line works is critical to the optimum timing for the project and it will be essential to have this infrastructure in place prior to completion and commissioning of the substation. The project schedules supplied by the Contractor shall be used by VRA to monitor the overall progress of the Work. The project schedules shall fully integrate design, procurement, manufacture, erection and commissioning activities. Key events shall be clearly identified on all project schedules and be integrated into the program logic.

2.2. Financing Details

The VRA, as Project Executing Agency, is expected to provide funding for the project. A loan facility from KfW is to be used to partly finance the Phase 1 of the project (17MW), through an on-lending Agreement between VRA and the Government of Ghana, which has since been executed. The amount to be provided was initially for the 12 MW facility (8MW Kaleo and 4MW Lawra), however, due to the falling prices of solar PV equipment, with the same financing facility, VRA is able to realize a total 17MW for the two sites (13W Kaleo and 4MW Lawra). Discussions are ongoing for the financing details for remaining 18MW under the Phase 2 component.

2.3. Valuation & Compensation of Properties

The project is to be achieved by utilizing a total land area of 44.92Ha. at three closely sited areas at Kaleo (10.22Ha, 18.39 Ha, and 10.18 Ha) as well as 11 Ha at Lawra. VRA used in-house expertise for the land surveying and pillaring of the identified sites. Strategies for acquisition was

2-2 | Page Jan. 2020

in line with the requirements of the its "Land & Resettlement Policy Framework Document" (February 2007), which is as follows:

- Referencing of all properties, land, crops and buildings, by officers of the Land Valuation Division (LVD) to be monitored by VRA.
- Assessment of the compensation values by the LVD and the valuation advice forwarded to VRA.
- The assessed report would be vetted, and corrections effected where necessary to ensure that the amounts are accurate and fair to both claimants and the VRA. These would then be processed for payment.
- Offers would be made to the claimants based on LVD's advice.
- Claimants dissatisfied with the offer have a right to petition for reconsideration.
- In this regard, such claimants are required to submit counter proposals supported by valuation opinion prepared by private valuers of their choice. The private reports are considered by VRA in conjunction with the LVD to ensure that claimants are treated fairly.
- Where necessary, dissatisfied victims would be invited to negotiate and arrive at acceptable figures.
- Project affected persons may resort to legal action in order to have their grievances addressed.

The process involved extensive consultations with the land-owning families that gave VRA opportunity to be conversant with the land tenure systems and arrangements within the areas as well as to identify right persons to deal with. The first consultation took place in 2010. Within the context of the community engagements, the nature of the project, its impact, the process of land acquisition and consequential compensation matters were explained in detail. This was to enable respective landowners freely to give out lands willingly. Further consultations were also held with the state land agencies both at the national level and at the Regional Level (Upper West Region). These include Land Valuation Division, Survey and Mapping Division and Public and Vested Lands Management Division of Lands Commission.

VRA acquired the lands for the PV sites through voluntary means and private treaties and therefore there is no involuntary acquisition associated under this project. Compensation was assessed based on an arm's length discussions on current market values within the neighbourhood. In actual sense the final value of amount payable for the land is a negotiated sum. In line with established procedures, compensation have been paid in full to the landowners and details are as required. VRA negotiated with the Land-owning families and obtained Leases from them. A term of fifty (50) years each was granted.

Currently, there is no law or legislation governing the length of Right of Way (RoW) for 34.5 kV transmission line. The 34.5 kV sub-transmission lines will, in principle, be constructed in the wayleave zones of the existing roads and transmission routes. Thus, for the sub-transmission line route, there would not be the need for any RoW acquisition. It is noted that about 0.5Km section of this new line shall traverse through the Lawra Station Forest Reserve. ommon tree species in the reserve include Khaya Senegalensis, Tectona grandis and Anogeissus leiocarpus. With the

2-3 | Page Jan. 2020

solar power sites, the identified economic trees were Sheabutter, Dawadawa, Red Berry, Cashew, Mahogany, Neem tree and Acacia.

VRA surveyors has subsequently carried out valuation of these economic crops and assessed compensation payable. In carrying out the valuation, careful consideration was given to voids in the farm holdings. The current statutory/Land Valuation Division (LVD) rates were used in computing the compensation payable on each farm. VRA in October 2018 paid landowners for the economic trees to be impacted upon by the project. Values paid are deemed to be fair and reasonable as all the relevant issues and determinants have been given due consideration. The proposed PV sites are used for agricultural purposes and there are no residential facilities on it, apart from the Kaleo Site 2, where 2 Fulani nomadic settlements are settled in 2 hamlets. These Fulanis were engaged by the landowners themselves to look after their cattle. Discussions with the landowners indicate that they will provide alternate accommodation to the landowners and ensure they relocate prior to project construction and there would be no need for any compensation for the relocation.

2-4 | Page Jan. 2020

CHAPTER 3 - PROJECT SETTING

3.1. Kaleo Site

The project site is located on the eastern side of the Kaleo township within the Nadowli-Kaleo District, formerly known as the Nadowli District. **Figure 1** in Appendix 2 shows the Kaleo Township within the context of the Nadowli-Kaleo District. Three sites of land sizes of 6.22 Ha, 4Ha and 18.39Ha are to be utilised for the Project (**Figure 2** in Appendix 2). The geographic coordinates of the PV Sites at Kaleo are provided in Table 3-1.

Table 3-1: Geographical Coordinates of Kaleo PV Sites

Name	Size (Ha)	Latitude	Longitude
Kaleo Site 1	6.22	10°10'22.89"N	2°32'1.07"W
Kaleo Site 2	18.39	10°10'49.91"N	2°32'4.98"W
Kaleo Site 3	10.18	10°10'49.91"N	2°32'4.98"W

The terrain of the three (3) project sites are mostly flat with a slight slope towards south. They are rectangular shaped which is regarded as suitable for PV installation. However, it needs to be adequately prepared for some part. Kaleo is an attractive site for PV development due to its direct access to the distribution grid and the flat terrain surface. This indicates that ramming the foundations of the support structure will be possible. The only significant constraint which needs to be considered for the future operation is the anticipation of the growing of the town and farms towards the PV area. Consequently, safety margins close to property borders are essential not only for safety reasons but also to avoid any energy production losses from shadows (small houses, pylons etc.). It is recommended to re-establish the existing footpath at the north of the site. This path is used by dwellers from the town to arrive at their farms. Keeping those paths would certainly prevent any conflicts.

The sites are all degraded and characterized by annual bush fires, continuous farming, and animal grazing. Parts of the area were previously used as a major farmland but is now mainly fallow. It is now used partly for farming of annual crops and legumes as well as animal grazing. Specifically, some tall trees, comprising mostly of Dadawa, Sheanut, Red Flowered Silk cotton, Nim Trees as well as shrub vegetation exist on the land.

Located within the project vicinity across the main road of Kaleo Site 1 are the Kaleo DA Nursery and Primary schools, and the Church of Pentecost. One key historical resource in Kaleo is the burial ground of the Late Hon. Jatoe Kaleo, who died on June 6, 1998. This site is about 500 m to the Kaleo Site 1. The Late Hon. Jatoe Kaleo was one of the leading Ghanaian politicians who led Ghana into independence. The Kaleo Police Station and the Ahmadiya Mission Hospital are both located close to the western side of the Kaleo Site 2. There are 2 Fulani nomadic settlements, one just outside the Kaleo Site 2 and the other located within the site, made up of 2 hamlets. As indicted earlier, these Fulanis were engaged by the landowners themselves to look after their cattle, subsequently, the landowners themselves will relocate the Fulanis to pave way for project construction. As

3-1 | Page Jan. 2020

shown in Table 1-1, Kaleo Site 2 is to be utilised for the Phase 2 Development which is planned for September 2020 and therefore the Fulani shall not directly be affected by the Phase 1 developmental activities. The neighbouring features around the immediate impact of the project area and their coordinates as well as distances from the project sites are shown in Table 3-2 and a satellite view shown in Figure 3 in Appendix 2 and images of the site are provided in Plate 1 - Plate 6 in Appendix 3.

Table 3-2: Neighbouring Infrastructure Within the Immediate Impact Area of the Kaleo PV Sites

			Distances (km)		cm)
Name of Infrastructure/facilities	Latitude	Longitude	Site 1	Site 2	Site 3
Kaleo Police Station	10° 9'56.28"N	2°32'24.91"W	1.1	0.48	1.76
Ahmadiyah Mission Hospital	10°10'10.81"N	2°32'30.27"W	0.96	0.72	1.42
Kaleo R/C Primary	10°10'19.27"N	2°32'32.54"W	0.96	0.93	1.26
Kaleo DA Nursery	10°10'27.62"N	2°32'20.89"W	0.62	0.93	0.84
Kaleo DA Primary School	10°10'35.84"N	2°32'5.12"W	0.42	1.12	0.43
Burial Site of Late Hon. Jatoe					
Kaleo	10°10'27.10"N	2°32'21.66"W	0.64	0.92	0.87
Church of Pentecost	10°10'34.12"N	2°32'15.65"W	0.56	1.1	0.59
Fulani Settlement 1	10° 9'54.26"N	2°32'10.14"W	0.92	0.17	1.72
Fulani Settlement 2	10° 9'58.61"N	2°32'18.41"W	0.92	0.28	1.63
Emmanuel Worldwide					
Synagogue	10°10'46.92"N	2°32'8.53"W	0.77	1.46	0.14
Kaleo Community Dam	10°10'53.74"N	2°32'32.19"W	1.35	1.8	0.83
Kaleo Site 1	10°10'22.89"N	2°32'1.07"W	-	0.76	0.84
Kaleo Site 2	10° 9'59.70"N	2°32'9.38"W	0.76	-	1.55
Kaleo Site 3	10°10'49.91"N	2°32'4.98"W	0.84	1.55	-

3.2. Lawra Site

The Lawra PV Site is located in Lawra in the Lawra Municipal. Figure 4 in Appendix 2 shows the Lawra Township within the context of the Lawra Municipal. The geographic coordinates of the PV Site at Lawra is 10.6624010 N, 2.8992180 W. This site has an area for installation of 11Ha and (See Figure 4 of Appendix 2), and the terrain is not completely flat showing small bumps and slight slope descending towards North with 2.5-3% in average. The slope needs to be considered in the design by adjustment of the row to row spacing. Based on the recorded GPS logs, the difference along the longer side of the property next to the road was estimated with 3 m. On each row of the mounting structure two PV modules are fixed in portrait position. Consequently, the distance between the front and back row is set to a minimum value of approximately 2.1 m in order to maintain the annual row to row shading losses to -1.8%. A 3 m bushfire buffer, 8-10 m towards road Wa-Lawra-Hamile is to be established. For the construction of the PV collector field, ground levelling will need to be conducted and tall trees as well as smaller vegetation will have to be removed in the terrain here as well.

3-2 | Page Jan. 2020

The site is located 3.96 km Northwest of Lawra village on the Lawra-Hamile road, which has now been asphalted. There are no settlements on this site, and the land is largely fallow with shrubs and Acacia and Sheanut being the most dominant trees. The land is also used for farming of annual crops and legumes as well as animal grazing. There is an untarred road located on the southern end of the site that leads to the Black Volta, which will serve as access route prior during construction. The waters of the Black Volta serve as the demarcation between Ghana and Burkina Faso. The water body also serves as a recreational facility during public holidays for the youth of Lawra. Just by the side of this road, but outside the project area, is a tree shrine, comprising of Ebony / Nim Tree, known as the Kulbonuo Shrine belonging to the Nuo-ire (wrongly spelt as Bayoyire in the Draft EIA Report) Family of Lawra.

The neighbouring features close to the Lawra PV sites and their coordinates and distances is shown in Table 3-3 and a satellite view shown in **Figure** 6 in Appendix 2. See Plate 7, Plate 8 and Plate 9 in Appendix 3 for pictures of the Lawra Site.

Table 3-3: Neighbouring Infrastructure Within the Immediate Impact Area of the Lawra PV Site

Name	Latitude	Longitude	Distance from Solar Site
Black Volta	10°40'9.79"N	2°54'41.68"W	1.50 km
Forestry Commission Lawra			1.80 km
Office	10°39'13.27"N	2°53'22.55"W	
Forest Reserve	10°39'16.02"N	2°53'27.82"W	1.64 km

3-3 | Page Jan. 2020

Chapter 4 - REGULATORY CONTEXT FOR STAKHOLDER ENGAGEMENTS

4.1. Corporate Policies

VRA has developed corporate policies regarding environmental protection, health and safety of its workers as well as welfare of the affected population. These corporate environmental, health, safety and social polices all aim at conducting its operations in such a manner that the safety, health and welfare of its workers, impacted communities and the integrity of the environment are safeguarded. Key applicable corporate policies relating to stakeholder engagement requirements to the project are listed below.

4.1.1. Environmental Policy Statement¹

The VRA Corporate Environmental Policy Statement commits the organization to ensuring continuous improvement of environmental performance to minimize the impacts of all its operations on the environment, in line with the principles of sustainable development, in addition to complying with national and international environmental protection regulations. The policy mandates the environmental process of the Ghana EPA in project implementation as well as the promotion of open communication on environmental issues.

4.1.2. Framework on Land Acquisition & Resettlement

To carry out its obligations under the Environmental Assessment Regulations Agency LI 1652 and the Ghana Energy Development and Access Project (GEDAP), VRA prepared a "Land Acquisition & Resettlement Policy Framework" (2017) which establishes broad principles, organizational arrangements and fair criteria to be applied in acquiring various interests in land and handling the attendant impacts on Property Affected Persons was also prepared and is under implementation. Even though these frameworks were prepared under GEDAP, they are relevant for all VRA projects. The plan and mode of dealing with issues regarding compensation for the acquisition of land for this proposed solar project is outlined in the VRA's Corporate "Land Acquisition and Resettlement Framework" and relevant portions discussed as appropriate in this Report.

4.1.3. Community Development Programme

VRA launched its **Community Development Programme** (CDP) to enhance the Community Development Initiative (CDI) programme initiated in 2003. The CDP sets out a framework for guiding the process of support for the development of all communities impacted by the operations of VRA. The primary goal of the CDP is to continue to maintain mutually beneficial relationships with the communities in which the Authority has carried out its primary operations since its establishment in 1961. It is expected that by promoting their empowerment and supporting the people to develop their skills, VRA will boost economic activities in all our communities and foster veritable development. Key areas of support under the CDP are an Education Scheme, Cultural Activities, Health Issues, Social Infrastructure Projects, Environmental Protection Activities and Charitable Donations. Communities within

4-1 | Page Jan. 2020

¹ See Front Page (i)

the area of influence of this proposed solar project, especially Kaleo and Lawra, are to benefit from the VRA CDP during the operational and maintenance phase. VRA would, under the Environmental Protection component of the CDP, consider assisting the National Commission on Civic Education and Forest Services Division to educate community members on impact and effects of bush fires.

4.1.4. Corporate Social Responsibility

The VRA Corporate Social Responsibility (CSR) Policy (2015) was developed to reflect standards based on national and international guidelines. These include the Ghana Business Code, the UN Global Compact, the United Nations Universal Declaration of Human Rights and the International Labour Organization Convention as well as best emerging practices in CSR. VRA aspires to meet these standards within the context of its Corporate values and through a continuous improvement approach while advancing its mandate to provide electric power safely, responsibly and sustainably and by exhibiting the same commitment of responsibility to all VRA businesses. Communities within the area of influence of this proposed solar project are to benefit from the VRA CSR activities, within the context of the CDP.

4.1.5. MOU Between VRA and the Forest Services Division

VRA and Forest Services Division entered into a Memorandum of Understanding (MoU) on October 20, 2003 to outline guidelines for the two institutions to collaborate for the effective management of power related activities in national forest reserves. Currently, VRA and FSD in pursuance of this collaboration have found it necessary to revise its separate roles and responsibilities of the partnership under this **MOU** to strengthen the collaborative initiative not only in forest reserves but in off-forest areas as well as the Volta Lake Basin in Ghana. A revised MOU was executed in April 2019 by the two agencies.

A 4.4 km of a new sub-transmission line is to be constructed to interconnect the PV Site at Lawra to the existing 34.5 kV Domwini – Lawra Line. It is noted that about 0.5Km section of this new line shall traverse through the Lawra Forest Reserve. VRA has applied these guidelines to project implementation in this reserve and engaged the Lawra Office of the Forest Services Division to undertake a quantification of the flora and fauna in the reserve, as well as the off-reserve areas of the project. VRA is to pay FSD for all economic trees that a felled on the Lawra Forest Reserve.

4.1.6. Local Content Policy

VRA as a strategic industry in April 2012 developed a Local Content Policy for its operations. The primary objective of this Policy is to promote and sustain industrialization through the utilization and optimization of the indigenous resources of the country. This Policy covers the VRA, its subsidiaries, contractors, subcontractors and other entities involved in any projects, operations, activities or transactions in Ghana. Contractors under the proposed solar project are to adhere to this local content policy. An implementation/strategy plan, dated April 2013, is in place to provide guidelines on VRA's procurement activities towards effective implementation of the policy. It is important to note that Local Content in

4-2 | Page Jan. 2020

VRA has not been developed as an isolated project or initiative; rather, it is included as a material part of the Authority's procurement process and core values towards the achievement of its corporate objectives.

VRA is to adhere to the requirements of the local content policy and discussions on this has stated with the traditional authorities and community leaders in Lawra and Kaleo.

4.2. National Regulatory Context

4.2.1. Environmental Assessment Regulation, LI 1652 of 1999

Stakeholder engagements forms a key activity in the Environmental Impact Assessment (EIA) process. The EIA Regulations (1999) address the need for stakeholder engagement during the EIA process. This is clearly outlined in the under Section 12(k) of the Environmental Assessment Regulation, LI 1652 of 1999, which mandates the consultation with members of the public likely to be affected by the operations of the undertaking so that the public is adequately and appropriately informed. These requirements mandate proponents to publicly disclose their Environmental reports by advertising in at least one national newspaper and a newspaper, of any circulating in the locality where the proposed undertaking is to be situated.

There is a requirement for a scoping notice to be advertised to relevant ministries and in at least one national and one local newspaper. Schedule 3 of the EIA Regulations provides the format for the public disclosure. Copies of the scoping report must be made available for inspection by the general public in the project locality. Once the EIS is published it must be advertised and made available to the general public, public agencies, organisations, NGOs, Metropolitan, Municipal and District Assemblies and local communities and mechanisms put in place so that consultees can make comments and suggestions on the project. There is also provision within the Regulations for the EPA to hold public hearings if there is an adverse public reaction to the project, there is the need for resettlement, or the project could have extensive effects on the environment.

4.2.2. Local Content & Local Participation (Electricity Supply Industry) Regulations, 2017, LI 2354

The LI 2354 aims at providing an enabling environment to ensure the maximum use of financial capital, expertise, goods and services locally. The LI mandates players in the energy sector to promote development initiatives for local stakeholders. This is to be archived through education, skills and expertise development, transfer of technology and know-how and an active research and development portfolio.

4-3 | Page Jan. 2020

4.3. International Regulatory Context

4.3.1. Sustainability Guideline - KfW Development Bank

An important element of the Environmental & Social Due Diligence planning and decision-making process of the KfW is to involve the affected communities and keep the public in the partner country informed. Stakeholder Engagement e.g. in form of public hearings are to be scheduled for the scoping phase of the ESIA process and for the presentation of the draft ESIA report, to consult with the affected people and/or their community representatives, cooperatives or non-governmental organisations (NGOs). The executing agency is required to conduct a meaningful participation and consultation process that allows affected people and interested stakeholders to express their views and concerns on project risks, impacts and the proposed mitigation measures. At the same time, the process shall also enable the executing agency to take these views into account and to react. For the sake of transparency, the executing agency is required to disclose relevant information on the environmental and social assessment of the FC-measure and a non-technical summary via appropriate media channels at an accessible location and in a timely, culturally appropriate manner. The whole process shall be comprehensive and cover all phases of the Financial Cooperation-measure. In relevant cases, the in-depth climate assessment (e.g. those affected, the public) should also be made accessible to the interested public.

4.3.2. International Finance Corporation (IFC) Performance Standards

The key requirements related to stakeholder engagement from IFC Performance Standard 1 are summarised below:

Identify affected communities and other stakeholders that may be interested in a Project and consider how to facilitate a dialog with all stakeholders.

 Development of a SEP, including measures for the effective participation of stakeholders identified as disadvantaged or vulnerable.

Disclosure of Information

Provision of relevant information on (i) the purpose, nature and scale of the project; (ii) duration of the proposed activities; (iii) any risks to and potential impacts on such communities and the relevant mitigation measures; (iv) the envisaged stakeholder engagement process; and (v) the grievance mechanism.

Informed Consultation and Participation

- Conduct an Informed Consultation and Participation process that will result in affected communities' informed participation.
- Manage a consultation process that captures both men's and women's views and respective concerns and priorities about impacts, mitigation mechanisms, and benefits, and
- Document the process and the measures taken to avoid or minimize risks to and adverse impacts on the affected communities and inform those affected about how their concerns have been considered.

External Communications

4-4 | Page Jan. 2020

• Implementation of a program on external communications that includes methods to (i) receive and register external communications from the public; (ii) assess the issues raised and determine how to address them; (iii) provide, track and document responses; and (iv) adjust the environmental and social management program.

Grievance Mechanism for Affected Communities

- Establish a grievance mechanism to receive and facilitate resolution of affected communities' concerns and grievances about the project's environmental and social performance;
- Inform the Affected Communities about the mechanism in the course of the stakeholder engagement process.

4.3.3. Equator Principles

The Equator Principles (EPs) are a set of standards, adopted voluntarily by Equator Principle Financial Institutions (EPFI's) that seek to determine, assess and manage social and environmental risks in project financing. Of the EPs, Principle Five, Six and Ten contain engagement specific requirement. Specifically, Principle Five dictates that an informed consultation and participation process be conducted with stakeholders, facilitating their informed participation in new developments and projects. Additionally, Principle Six includes requirements for establishing a grievance mechanism, and all reporting and disclosure requirements are now included within Principle Ten. Under the "Equator Principle 10: Reporting & Transparency", clients are committed to ensure that, at a minimum, a summary of the EIA is accessible and available online. From these, it is recognised that disclosure of information throughout the project will help to ensure accountability and transparency.

4.3.4. World Bank Environmental and Social Standards Framework

The World Bank Environmental and Social Framework Standards (ESSF) sets out the World Bank's commitment to sustainable development, through a Bank Policy and a set of Environmental and Social Standards that are designed to support Borrowers' projects, with the aim of ending extreme poverty and promoting shared prosperity. The Environmental and Social Standards Framework (ESF) therefore enables the World Bank and Borrowers to better manage environmental and social risks of projects and to improve development outcomes. The "ESS10: Stakeholder Engagement and Information Disclosure" recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. This is because effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.

4-5 | Page Jan. 2020

Chapter 5 - STAKEHOLDER IDENTIFICATION AND ANALYSIS

5.1. Stakeholder Identification

The objective of stakeholder identification is to establish which organizations and individuals may be directly or indirectly affected (positively and negatively) or have an interest in the Project. VRA recognizes that the first and important step in the stakeholder engagement process is the identification of our stakeholders, who they are, their groupings and sub-groupings. Stakeholder identification will be an ongoing process throughout the life of the project, requiring regular monitoring, review and updates. However, within the broader framework of the project activities to be undertaken, the following categories of stakeholders can be identified:

- a. Stakeholders who are directly and/or indirectly impacted by the Project or its component.
- b. Stakeholders that have interest in the Project and its component; and
- c. Stakeholders that have the potential to influence the Project outcomes

5.1.1. Stakeholders who are directly and/or indirectly impacted by the Project

The 35MW Solar Power Project is being developed in Kaleo and Lawra within Nadowli-Kaleo and Lawra Districts of the Upper West Region of Ghana. The following are potential identified stakeholders who will directly and/or indirectly be impacted by the Project either positively or negatively:

- a. *Project-Affected Persons (PAPs)* have been defined as any person or persons, households, businesses or other private or public institution who, on account of involuntary resettlement, would suffer the loss of livelihood and/or an asset (e.g., residence, business, other). This includes those who would lose their rights, title or interest in all or any part of the asset, in full or in part, permanently or temporarily, and who might suffer income or other economic loss as a consequence thereof, people in economic enclaves and markets who receive power illegally, petty traders, hawkers and settlers occupying rights of way of utility infrastructure, etc.
- b. Other Project-Affected-Persons: These are groups or individuals who could directly or indirectly be impacted by the environmental, social, health and safety impacts of project activities. These impacts could include degradation of air, water, and soil; noise, damage or loss of access to cultural heritage, traffic congestion, social unrest caused by immigrant workers; risks of accidents to vehicle, pedestrians, electrocution, exposure to hazardous materials, loss of ecosystem services etc.
- c. Project beneficiary stakeholders: These are individuals or groups who will directly or indirectly benefit from the Project. These benefits could include direct access to metered power supply (either for residential/commercial use), schools, hospitals, markets and economic enclaves. The general public will also benefit from improved access to reliable power supply.

5-1 | Page Jan. 2020

5.1.2. Stakeholders that have interest in the Project

These are groups or organizations that are not directly affected by the Project, but their interest identifies them as stakeholders. This category of stakeholders includes:

- Government, its Ministries, Departments and Agencies other than those listed as directly or indirectly affected.
- Non-Governmental Organisations and Not-for-Profit Organisations that concern themselves with environmental, social, and gender as well as electric power issues.
- Policy and law makers (i.e. Members of Parliament)
- Civil society organizations, and policy think tanks
- Religious and faith-based organizations
- Traditional authorities
- Security agencies

5.1.3. Stakeholders that have the potential to influence the Project outcomes

The categories of stakeholders in this group include the following.

- Implementing Entities
- Local organizations and NGOs
- Government authorities
- Labour unions (Public utility workers union)
- Media

5.2. Analysis and Prioritization of Stakeholder Groups

VRA recognizes the important roles these identified stakeholder groups play, their interest, the extent to which they could be affected both directly and indirectly and the fact that the success and sustainability of the planned Project depends largely on their support, collaboration and buy-in. To this end, VRA has prioritized these groups and devised appropriate and acceptable approaches to engage them within the life of the Project. It must be emphasized that the level of engagement with these stakeholder groups will vary depending on their level of influence and the extent to which they will be impacted.

In prioritizing, VRA considered the following best practice guidelines per the IFC standards:

- a. What type of stakeholder engagement is mandated by law or other requirements?
- b. Who will be adversely affected by potential environmental and social impacts in the project's area of influence?
- c. Who are the most vulnerable among the potentially impacted, and are special engagement efforts necessary?
- d. At which stage of project development will stakeholders be most affected (e.g. procurement, construction, operations, decommissioning)?
- e. What are the various interests of project stakeholders and what influence might this have on the project?
- f. Which stakeholders might help to enhance the project design or reduce project costs?
- g. Which stakeholders can best assist with the early scoping of issues and impacts?
- h. Who strongly supports or opposes the changes that the project will bring and why?

5-2 | Page Jan. 2020

To help decide on the engagement approaches to apply with its stakeholders, VRA will apply the prioritization criteria that has been listed below. If stakeholders are not on the list and would like to be kept informed about the project, contact should be made through the Chief Executive of VRA or the corporate email to the Corporate Communications Section at corpcomm@vra.com, the outfit with responsibilities for stakeholder communications (contact details are provided under Section 6.11 of this document).

<u>Category 1</u>: These include direct Project Affected Persons that are affected socially or environmentally by the Project. Groups benefiting directly/indirectly from positive impacts of the Project are also captured within this category. Within the scope of the project, these include the following:

- Landowners/Landlords (both private and public)
- Heads of family
- Fulani Nomads
- Traditional Authorities (Lawra Naa / Kaleo Naa)
- Occupiers of Rights of Way along transmission corridors
- Shrine Owners
- Assembly persons

For these categories of stakeholders, VRA will engage at all stages of the project cycle i.e. pre-design, design, implementation and reporting.

<u>Category 2:</u> These include state institutions, agencies and utility companies who have the potential to influence the outcome of the Project. These include the following:

- Northern Electricity Distribution Company of Ghana (NEDCo)
- Environmental Protection Agency (EPA) Ghana
- Lands Commission of Ghana
- Forest Commission
- Water Resources Commission
- Ghana Civil Aviation Authority
- Lawra Municipal Assembly
- Nadowli-Kaleo District Assemblies
- Upper West Regional Administration
- Lawra Municipal Assembly
- Nadowli-Kaleo District Assembly
- Ghana Health Service
- Ghana Education Service
- Ghana National Fire Service
- Lands Commission
- Land Use & Spatial Planning Department
- Department of Feeder Roads
- National Disaster & Management Organisation
- Ministry of Food & Agriculture
- Department of Social Welfare

5-3 | Page Jan. 2020

For these categories of stakeholders, VRA will collaborate with and engage at times at all stages of the project cycle i.e. pre-design, design, implementation and reporting.

<u>Category 3:</u> These are categories of stakeholders who may have high interest in the Project outcomes but may have low influence. These could include the following:

- Kaleo Police Station,
- Kaleo R/C Primary,
- Kaleo DA Nursery,
- Kaleo DA Primary School,
- Church of Pentecost,
- Ahmadiyah Mission Hospital,
- Emmanuel Worldwide Synagogue

For these categories of stakeholders, VRA will consult and collaborate at times at all stages of the project cycle i.e. pre-design, design, implementation and reporting.

<u>Category 4:</u> These are categories of stakeholders who may have low interest in Project outcomes and have low influence. These could include the following:

- Other PAPs including pedestrians, road users (impacts associated with traffic congestion)
- Media

VRA will keep informed these stakeholders at all stages of project implementation phase.

5.3. Strategies for Engaging with Stakeholders

This section outlines the broader strategic approach VRA will employ to constructively engage with all identified groups. It is organized according to categories per the stakeholder engagement prioritization criteria. Table 5-1 provides detailed roles and responsibilities within VRA for the implementation of this SEP.

5-4 | Page Jan. 2020

Table 5-1: Strategies for Engaging Stakeholders

Table 5-1: Strategies for Engaging Stakeholders							
Stakeholders	Impacts on Project Outcome	Method of Engagement	Information to be shared	Frequency of Engagement			
 Landowners/Landlords (both private and public) Heads of family Fulani Nomads Traditional Authorities (Lawra Naa / Kaleo Naa) Shrine Owners Assembly persons 	 Lose their rights, title or interest in all or any part of the asset, in full or in part, permanently or temporarily. Long term economic loss as a consequence. Community health and safety resulting from construction activities. Lack of effective engagement could lead to delays in project implementation and hold ups. Early inclusive engagement with these groups could results in positive project outcomes, ensures buy in, smooth implementation and sustainability of project benefits. 	 VRA will engage these groups once specific project locations are identified. Engagement will take the form of focus group meetings with identified landowners, families, traditional authorities and their designated representatives using other traditional mode of engagement. Venue or locations for these meetings will be agreed with all parties ensuring stakeholders will not have to travel long distances for such engagements. Valuation methods and general procedures for determining compensations will be discussed with these stakeholders. Concerns of women, the elderly, marginalized and other vulnerable groups within the family and traditional set up will be identified and given the opportunities for their concerns to be heard. 	Project documents including non-technical summary reports of infrastructure works to be undertaken, detailed engineering designs, brochures, and other project visual displays.	 Engagement with this group will be a two-way constructive engagement where the views, concerns, opinions and suggestions are considered during design, implementation and reporting. Engagement will be an on-going process within the life of the Project starting from design where their concerns and issues will be considered, addressed and factored into designs. Scheduled engagement at the various stages of the project will be agreed with the stakeholders. Opportunities will also be created for providing feedback and addressing grievances from affected parties. 			

5-5 | Page Jan. 2020

Stakeholders	Impacts on Project Outcome	Method of Engagement	Information to be shared	Frequency of Engagement
 Shops/business owners Occupiers of Rights of Way along transmission corridors 	 Loss of business hours, assets, income and livelihood. These stakeholder groups could also be impacted by community health and safety resulting from construction activities. Early constructive engagement with this group could improve general acceptability of the project by the potential affected communities, avoid delays in implementation, ensure their buy-in, and support for overall sustainability of project benefits. 	 VRA will identify and engage these groups once project specific locations are identified. Engagement will take the form of public forums and town halls at a location agreed to by all. VRA will seek input and support from this group in identifying routing paths for stringing and laying power distribution cables. Valuation methods and general procedures for determining compensations will be discussed with these stakeholders. VRA will pay particular attention to women, youth, and other vulnerable groups ensuring their needs and concerns are considered and addressed. 	Project implementation schedule, posters leaflets/flyers and brochures.	 Engagement will begin from design when locations are identified. On-going engagement at various stages of the project cycle especially during land acquisition, planning, implementation and preparation of EIA. VRA will provide regular updates on project implementation schedule ensuring timelines for implementation of infrastructure activities are communicated well in advance of time to all. During implementation, VRA will create appropriate channels for receiving and dealing with grievances and providing feedback to affected communities.

5-6 | Page Jan. 2020

Stakeholders	Impacts on Project Outcome	Method of Engagement	Information to be shared	Frequency of Engagement
Beneficiary communities / general public	 This group could include schools, markets and economic enclaves, hospitals, residences and the general public who may benefit from improved access to electricity and lighting including street lightening along major roads in the Region. Early engagement with this group to outline benefits of project and activities under the project is critical to ensuring support and buy-in for the life of the 35MW Solar Power Project. 	Open forums, town halls, press conferences and media and public briefings.	• Posters, project implementation schedule, leaflets/flyers and brochures.	Engagement will be ongoing throughout the life of the Project.
Northern Electricity Development Company of Ghana (NEDCo)	 Lack of proper planning and effective collaboration with this key implementing entity could result in deficiencies and delays in project design and implementation. Effective collaboration with NEDCo in project planning and design, environmental, social, health and safety consideration, implementation and monitoring could result in positive project outcomes 	 Workshops, seminars and conferences at a location agreed to by all parties. VRA will collaborate continuously with leadership of NEDCo as well as project teams at all stages of the project cycle through the sharing of project documents and related information, assessments and reports. Formal and informal meetings will also be used to collaborate. 	• Environmental and Social Management Systems (ESMS), detailed project designs, EIA, Occupational Health and Safety Plan, Labour Management Plan, newsletters, brochures and flyers.	Collaboration will be ongoing soliciting views, opinions and recommended suggestions from this entity at all stages of project cycle and throughout the lifespan of the project.

5-7 | Page Jan. 2020

Stakeholders	Impacts on Project Outcome	Method of Engagement	Information to be shared	Frequency of Engagement
	and sustainability of the project.			
 Environmental Protection Agency (EPA) Ghana Water Resources Commission Lands Commission of Ghana Forest Services Division Ghana Civil Aviation Authority 	 Absence or lack of proper collaboration could result in delays in implementation of projects that have potential significant environmental, social, health and safety impacts. Early collaboration and engagements will help define, assign and agree on clear roles and responsibilities of VRA in ensuring assessments, reports, permits and licenses are completed and implemented on time. 	 Meetings and workshops to share and exchange information, opinions, and concerns. VRA will ensure information and communication flow is two way where the concerns of these institutions with respect to design and implementation are considered. 	• Project documents including but not EIA, ESMS, Land Acquisition and Compensation Plan, Occupational Health and Safety Plan, Labour Management Plan and other project reports.	Collaboration will be ongoing soliciting views, opinions and recommended suggestions of these entities at all stages of project cycle and throughout the lifespan of the project.
 Lawra Municiapl Assembly Nadowli-Kaleo District Assemblies Upper West Regional Administration Lawra Municipal Assembly Nadowli-Kaleo District Assembly Ghana Health Service Ghana Education Service Ghana National Fire Service Lands Commission Land Use & Spatial 	 Lack of buy-in from District Assemblies could affect planning and implementation of key infrastructure works VRA will leverage the influence of the District Assemblies through effective collaboration to ensure project activities is properly executed taken into account the expressed views, opinions and 	Meetings and workshops to brief, share information on the projects, activities and plans as well as receive inputs about the knowledge of the project area and for project planning and implementation.	Non-technical executive summary of project documents and reports, newsletters and flyers.	Ongoing and throughout the lifespan of the project.

5-8 | Page Jan. 2020

Stakeholders	Impacts on Project Outcome	Method of Engagement	Information to be shared	Frequency of Engagement
Planning Department Department of Feeder Roads National Disaster & Management Organisation Ministry of Food & Agriculture Department of Social Welfare	concerns of PAPs including women and vulnerable groups.			
 Kaleo Police Station, Kaleo R/C Primary, Kaleo DA Nursery, Kaleo DA Primary School, Church of Pentecost, Ahmadiyah Mission Hospital, Emmanuel Worldwide Synagogue. 	 CSO, NGOs and faith-based organizations tend to be advocates for good practices and advocates for the vulnerable and disadvantaged groups in society. Poor collaboration and consultation with this group in sharing and exchange of information has the potential to result in bad information and negative publicity with the general public Having them on board, taking their inputs and suggestions and providing them with the appropriate project information could generate positive public interest in the project. 	Town halls, questionnaires, public forums, press conferences and meetings.	• Non-technical executive summary of project documents and reports, newsletters and flyers. Additionally, summary updates on implementation with respect to issues that affect the community and how issues of concern to them are considered and addressed within the scope of the projects.	Continuous. More of such collaboration will be promoted during design, when project locations are identified and during implementation of activities.

5-9 | Page Jan. 2020

Stakeholders	Impacts on Project Outcome	Method of Engagement	Information to be shared	Frequency of Engagement
Other PAPs including road users (impacts associated with traffic congestion)	• Community health and safety within the project area of influence, reputational risk for VRA, implementation challenges arising from pollution, accidents, and fatalities on the affected communities, and bad public image	TV and radio advertisement, publication of implementation schedule in local newspapers.	• Implementation schedule, flyers and leaflets on community health and safety at the construction site.	Continuous during constructional and operational activities.

5-10 | Page Jan. 2020

Chapter 6 – STATUS OF STAKEHOLDER ENGAGEMENTS

6.1. Introduction

Projects and activities that have the potential to have significant adverse environmental and social impacts include the construction of a Photovoltaic Plant, substations, underground cables, sub-transmission lines, medium voltage distribution lines, low voltage distribution lines, and low voltage feeder bifurcation. Key potential impacts and risks associated with these interventions include community as well as occupational health and safety. The design phase of the project life cycle offers the best opportunity for effective consultation, engagement and active participation of all relevant stakeholders. This ensures the outcome of the design reflects the inclusive engagement and participation of all stakeholders including women and vulnerable groups in the society.

As the Project Executing Agency, the VRA will need to ensure that they communicate and build relationships with the correct levels of local government in the Nadowli-Kaleo District as well as Lawra Municipal, both in the Upper West Region where the project site is located. Subsequently, VRA is committed to a technically and culturally appropriate approach to consultation and engagement with all stakeholders affected either directly or indirectly by the Project. In view of this, a program of stakeholder engagements was developed as part of this environmental assessment to avoid any risk of apprehension associated with this project like problem of destroying properties and extension of the allotments. The engagement process for the project was designed to meet Ghanaian legal requirements for public participation and to align as far as practically possible with good international industry best practice, based on the project timing and budget. It is important to note that there are practical and financial limitations to the involvement of all individuals within the engagement process. Thus, public participation aims to generate issues that are representative of societal sectors, not individuals. Subsequently, the stakeholder engagement has been designed to be inclusive of a broad range of sectors relevant to the proposed project.

During the course of this project a number of stakeholders are regularly being engaged, including regulatory bodies, government ministries, and communities along with others. These stakeholders will continue to be engaged throughout the development of the project. A summary of the various engagements undertaken to ensure that all the identified stakeholders gain a better understanding of the project has been described in the Stakeholder Engagement Report, December 2017 and updated in the Final EIA Report, September 2019. The wide range of stakeholders engaged is because from our perspective, diversity of opinion rather than consensus building is likely to enrich ultimate decision-making, which is critical for project success. A summary of the main inquiries, proposals and concerns raised by the stakeholders during these various community engagements events and the responses provided are outlined in Appendix 4.

6-1 | Page Jan. 2020

Key participants during the various engagements are listed in Appendix 5 of this report whilst the signed list of participants during all the engagements are provided in Appendix 6 of the Final EIA Report.

6.2. Engagements with Property Affected Persons

Properties affected by the project included land as well as the various economic crops that were available on the land. VRA has subsequently identified all the PAPs and has held a series of negotiations with the heads of the land-owning families as well as the crop owners. Following an agreement of the cost of the land, VRA has paid in full, the entire cost of the land and land acquisition is now complete. Subsequently, the land has been acquired from the various landowners, namely Nana Bayau Family of Kaleo and the Debuo Family of Lawra and separate Memorandum of Understandings' (MoU) between VRA and the families in question were executed initially signalling intention for ownership transfer. VRA has since acquired Leases for the lands from the Lands Commission.

Following the listing and quantification of all economic crops on the project sites, VRA again processed all necessary documentations required for the payment of economic crops and prices which was then communicated and agreed with by the crop owners. The landowners and community leaders during the various stakeholder engagements advised that as part of their customs, certain rites ought to be performed before the projects commence and a list of items required made available to the VRA.

In August 2019, consultations were held with two (2) elderly women who were engaged in farming activities on the Kaleo Site (See Plate 10). This was to help understand how they expect to continue their livelihood due to the displacement as requested by the EPA in their review comments on the Draft EIA. The women were Agathar Kofi (0249864805) and Esther Mwinmandele (055442183). Present at this meeting was John Badingu Putieha, the landowner of the site as well as Hon. Ngminnie A. Noah (0247697937), the Kaleo East Assemblyman and also the assigned members of the Project Grievance Committee. The women farmers, who are also related to the landowner, are engaged in annual cropping of groundnuts, millets and beans. As at the date of the consultation, which was August 27, 2019, they had ceased all farming activities on the said land. It must be noted that farming activities have ceased on the Lawra site, and the farmers according to the landowner have moved on to other bare lands for their farming activities. VRA employed voluntary acquisition for the acquisition of land and compensation based on agreed values has been paid to the farmer and relatives for the land and the economic trees. This notwithstanding, it is expected that further discussion will be held on the subject to ensure that the livelihoods of all those affected by the project, especially that of vulnerable groups like the elderly women, are not negatively impacted.

6-2 | Page Jan. 2020

The landowner of the Kaleo Site 2, John Bangugu Putiaha and the Adams Fulani (Fulani herdsman) were also engaged during the same meeting with the elderly women regarding the relocation of Fulani herdsman from the site (See Plate 11). According to the landowner, he has received full compensation for the land and has had discussions with the Fulani herdsman regarding his relocation. He noted that the Fulani had planted corn and assured that the Fulani after harvesting their corn in September 2019 will be relocated by close of October 31, 2019. He agreed that it was his responsibility to relocate the Fulani and has identified other areas where the Fulani will be relocated. Subsequently, he consented to a formal commitment to his promise and this was witnessed by Hon. Ngminnie Noah, the Assemblyman of Kaleo (See Plate 12). As shown in Table 1-1, the site in question, Kaleo Site 2 is to be utilised for the Phase 2 Development which is planned for June 2020.

A meeting was also held with members of the Nuo-ire Family of Lawra regarding the relocation of the Kulbonuo Tree Shrine, located close to the Lawra Site and along the path leading to the Black Volta (See Plate 13). The VRA Team noted that the Lawra site has been acquired in such a way to avoid the shrine, however, its nearness to the project site could be a recipe for future conflict thus the need for the engagement. The leader of the family, Raymond Nuo-ire, indicated that when their forefathers settled at the project site, they experienced peace, thus, they decided to worship at the tree shrine due to the peaceful nature of the settlement. Traditional rites are performed at the tree shrine after the harvest of crops, usually in October. The last time such a sacrificial ceremony was performed was in year 2015, and this has been due to the demise of their father who usually led in the ceremony. However, these ceremonial rites are expected to commence in the coming years so the need to co-exist with the Lawra solar project within the same vicinity is critical for the family.

VRA reiterated that the shrine can easily co-exist with the solar power project and will do so by installing a chain linked fenced with access gate, to be kept under lock, to avoid encroachment by pedestrians. The shrine owners will therefore have direct access to the shrine as and when required for the necessary rituals and this will not have any impact on the project. A Consent Sheet formally executed between the shrine owners and the VRA Team on August 29, 2018 is attached as part of Appendix 8. The list of key PAPs consulted as at close of August 2019 are outlined in Table 6-1.

Table 6-1: List of Key Property Affected Persons Consulted Regarding Acquisition

Community	Affected Property	Persons Consulted	Title
Kaleo		Mwini Bankuro SanjieS. AnwabiriAdama BondinubaJohn Badingu Putieha	Family HeadElderElderElder
	Economic Crops	 Joseph Kofi Maliwiihi John Badingu Putieha	Crop OwnerCrop Owner

6-3 | Page Jan. 2020

Community	Affected Property	Persons Consulted	Title
	Annual crops	Esther Mwinndel	■ Farmer
		Agata Kofi	Farmers
	Hamlets	Adams Fulani	Squatter
Lawra	Land belonging to	Nuo-Ire Raymond	Family Head
	the Debuo Family	Nuo-Ire Imuo	Family Elder
		Nuo-Ire Zom-Nang	Family Elder
	Economic Crops	Nuo-Ire Raymond	Family Head
		Kuunor Sangtuo	Crop Owner
	Kulbonuo Tree	Nuo-Ire Raymond	Shrine Owner
	Shrine	Nuo -Ire Pices	Shrine Owner

6.3. Engagements with Community Members

The stakeholder engagements, where required, may also include public hearings with traditional heads, opinion leaders and community members at designated areas in the communities. The Ghana EIA Regulations LI 1652 require the EPA, if relevant, to organize public hearings as part of stakeholder engagements. Section 31 of the IFC Performance Standard 1 also reiterates this requirement, by requesting clients to conduct an Informed Consultation and Participation (ICP) process that will result in the Affected Communities' informed participation. ICP involves a more in-depth exchange of views and information, and an organized and iterative consultation, leading to the client's incorporating into their decision-making process the views of the Affected Communities on matters that affect them directly, such as the proposed mitigation measures, the sharing of development benefits and opportunities, and implementation issues.

Stakeholder engagements with community members involved the use of public hearings to ensure maximum participation by all. Under the project, three (3) major public hearings relative to the current project sites have been undertaken. These events were organized to provide opportunity to discuss the project with the community members and the outcomes of these are discussed below.

6.3.1. Local Stakeholder Hearing for the Clean Development Mechanism

The project has the prospect of contributing in a large measure to the global effort at reducing carbon reduction. Subsequently, VRA, with assistance of Lahmeyer International (project consultants), registered the SPP-UWR under the Clean Development Mechanism (CDM), a project-based mechanism for the greenhouse gas emission reduction under the Kyoto Protocol.

The objectives for registering SPP-UWR with the CDM are:

- To help mitigate climate change
- To assist the country in achieving (i) sustainable development and (ii) transfer of technology know-how

6-4 | Page Jan. 2020

 To assist the country to achieve their internationally binding emission reduction commitments

The project is to demonstrate that emissions reductions from renewable energy can earn additional income and the introduction of CDM know-how was expected to raise environmental awareness and generate interest in low carbon energy technologies. Under the CDM, a local stakeholder hearing is an important procedure which shall ensure the sustainability and transparency of the project of concern. For CDM projects, a twofold stakeholder procedure is required, embracing a local and an international stakeholder consultation. Whereas the international stakeholder consultation takes places during validation at an advanced stage of the CDM project development cycle, the outcomes of the local stakeholder hearing need to be considered in the official project documentation, the so-called Project Design Document (PDD).

It is the project developer's responsibility to invite the local stakeholders for an according stakeholder consultation. Within the PDD, it must be demonstrated that comments by local stakeholders have been invited, a summary of the comments received has been provided, and a report to the designated operational entity on how due account was taken of any comments has been received. The local stakeholder public hearings for the two project sites under the CDM were held on January 2012. This was done in collaboration with Lahmeyer International (now Tractebel Engineering). The event at Kaleo was held at the St. Basilde Vocational School on January 19, 2012 whilst that at Lawra was at the Lawra Municipal Assembly hall on Jnanuary 20, 2012. Plate 14 and Plate 15 shows pictures at the CDM hearing event at Kaleo and Lawra respectively.

6.3.2. Pre-Construction Local Stakeholder's Events

A preconstruction stakeholder engagement events were held in November 2017 to basically inform the community members about the change of project scope, that is the elimination of the Jirapa site and the extension of that of Kaleo and Lawra communities. The event at Kaleo was held at the St. Basilde Vocational School on November 2, 2017 whilst that at Lawra was at the Lawra Municipal Assembly hall on Nov. 3, 2017. Notice for the local stakeholder events were though public banners, advertisers' announcement in the national dailies as well as radio announcements on Westlink Radio 88.1 FM at Lawra and Tumpaani 88.5FM FM based in Nadowli for the Kaleo event.

Identifiable stakeholder groups were invited to the events by formal letters. Participants included representatives from the institutions:

- Environmental Protection Agency,
- Lawra Municipal Assembly
- Nadowli-Kaleo District assembly
- Ghana Police Service
- Ghana National Fire Service

6-5 | Page Jan. 2020

- Ghana Health Service
- Traditional Authorities
- Landowners
- Community Representatives
- Media Houses

The District Chief Executives of the Nadowli-Kaleo District, Honorable Katherine T. Lankono and that of Lawra Municipal Assembly, Honorable Martin Bomba-Ire, were each present at the events within their areas of jurisdictions and chaired the functions. The non-technical explanation of the project was presented by VRA through a power point presentation and the outline was as follows:

- Update on Project Status
- Outcome of Environmental Impact Assessment
- Key Mitigation initiatives
- Way forward.

Upon agreement with participants, the presentation was made in English language and translated in the local dialect i.e. Dagaari, at both the Kaleo and Lawra events. This was done by the elected community representatives, also knowns as Assemblymen, in the areas. Furthermore, all questions and comments from the stakeholders were made in English language/ Dagaari. Hence, potential language barriers were duly considered, and it was ensured that all participants had the same level of understanding of the local stakeholder consultation. The presentation was followed by general discussions, to enable participants make inputs or have their concerns addressed as required. Plate 16 and Plate 17 shows pictures at the public hearing event at Kaleo and Lawra respectively.

6.3.3. Engagement with Traditional Authorities

One of the key issues that came out during the pre-construction stakeholder engagement was the need for VRA to formally introduce the contractors to the traditional authorities prior to commencement of work. This was to enable them to collaborate effectively in project implementation, especially regarding employment. Subsequently, following the execution of contract with Elecnor SA of Spain, and the planned commencement of physical construction in November 2019, VRA in August 2019 met with the traditional authorities in Lawra and Kaleo. The rational was to introduce the contractors to them and to update them on project progress as well as solicit cooperation during project information, as has been agreed upon during the stakeholders meeting in November 2017. The meeting at Kaleo was held at the Kaleo Townhall on August 27, 2018 (see Plate 18) whilst that at Lawra was at the Lawra Naa Palace on August 28, 2019 (See Plate 19). The VRA Team was led by the Project Director who was accompanied by the Project Engineering and Environmental Teams, staff of NEDCo and representatives of Elecnor and Tractabel.

6-6 | Page Jan. 2020

The traditional authorities were informed that VRA had finally completed the process of procurement of the contractors and funding for the project had been received from the German Government. Physical construction is targeted in November 2019 and the contractors will be based largely in Wa. Compensation has been paid for the acquired land as well as all economic trees on the project sites. Farmers have been allowed to harvest annual crops and it is expected that landowners will ensure that farming activities are ceased by close of September 2019 to allow for smooth entry onto the land. The key issue raised by the participants were on employment for the youth. The Project team assured that they will be depending on the community leaders to assist in the employment process to ensure it doesn't affect project implementation.

6.4. Engagements Stakeholder State Agencies

Various consultations have been held with key state agencies as stakeholders right from the initial stage of the project in 2012 till date to discuss project implementation strategies. In 2012, the officials of these state agencies were briefed on the project as well as their expected roles in ensuring smooth and successful project implementation. VRA officials also discussed the various components of the project, including issues of environmental management and selection of project site, among others. In addition to informal discussions, formal letters were also submitted to some of the state agencies to solicit for relevant information for either the EA process or for smooth collaboration. The letter requested that if their outfit had any interest, concern, or special knowledge relating to potential environmental, health, occupational safety as well as social effects of the proposed undertaking, they may submit such concern to the Project Director, VRA. The state agencies were also invited to participate in the "Local Stakeholder Hearing for the Clean Development Mechanism" that was held in January 2012.

Following the initial phase consultations and due to changes in project scope, representatives from stakeholder agencies were again invited to participate in the "Pre-Construction Local Stakeholder's Events" organised in November 2017. Their invitation was essential due to change of government at the time resulting in likely changes in personnel working at these agencies, especially the administrative heads. Their invitation was to enable them voice out their concerns and provide input not project implementation.

VRA in August 2019 also introduced the project contractors to the heads of the local government administration in the project areas. These were the Upper West Regional Minister, Honourable Hafiz Bin Salih, the Nadowli-Kaleo District Chief Executive, Honourable Katherine T. Lankono and that of Lawra Municipal Assembly, Honourable Martin Bomba-Ire. The Lawra Municipal Chief Executive was represented by the Municipal Coordinating Director, Mohmmed A. Majeed. A presentation on the status of the project was made to the Upper West Regional Minister. Pictures of these August 2019 events are shown in Plate 20 to Plate 23.

The state agencies are listed below, and the list of individuals consulted so far during these engagements are outlined in Appendix 5.

6-7 | Page Jan. 2020

- Upper West Regional Administration
- Lawra Municipal Assembly
- Nadowli-Kaleo District Assembly
- Ghana Health Service
- Ghana Education Service
- Ghana National Fire Service
- Lands Commission
- Land Use & Spatial Planning Department
- Department of Feeder Roads
- National Disaster & Management Organisation
- Ghana Meteorological Agency,
- Ministry of Food & Agriculture
- Department of Social Welfare

6.5. Consultations with Stakeholders of Neighbouring Facilities/Activities

As requested by the EPA, owners / representatives of neighbouring facilities located within the project vicinity are critical stakeholders and needs to be consulted. In view of this, a meeting was held on August 29, 2019 with representatives from the underlisted facilities at the Kaleo Community Information Centre (See Plate 24 of Appendix 3):

- Kaleo Police Station,
- Kaleo R/C Primary,
- Kaleo DA Nursery,
- Kaleo DA Primary School,
- Church of Pentecost.
- Ahmadiyah Mission Hospital,
- Emmanuel Worldwide Synagogue

List of participants in provided in Appendix 5. VRA informed them of the status of the project and advised that the contractor will be commencing work in November 2019. Subsequently, as key stakeholders around the project facility, their expected role will be to facilitate to ensure collaboration for the smooth implementation of the project. Discussions centred on the need for education on road traffic, road safety (especially with the school children), noise making, social conflict, HIV and related sexually transmitted diseases, vandalism, theft, etc. Mitigative measures put in place as well as opportunity for employment were also discussed. The project team further requested for all concerns during project implementation to be channelled through the assemblyman for amicable resolution and encouraged participants to avoid construction of illegal road ramps as it reduces the integrity of the road resulting in pot holes which will not be conducive for the project and community.

6-8 | Page Jan. 2020

6.6. Consultations with Forest Services Division

Forest Services Division (FSD) of the Forestry Commission is charged to protect, develop and manage the country's Forest and wildlife resources. There will be the construction of a sub-transmission line through about 0.5km section through the forest reserve at Lawra. This has the potential of compromising on the integrity of the reserve. Consultations have subsequently been held with the Forest Services Division (FSD) to help discuss modalities for ensuring that the affected forest reserve does not suffer any unreasonable degradation due to the project activities. Thos consulted included FSD Head-office in Accra, Upper West Regional office in Wa as well as the District office in Lawra. The consultations centred on work in the reserve to ensure adherence to the conditions of MOU between VRA and FSD regarding construction and operations of bulk power transmission lines within forest reserves.

A joint field visit was undertaken in May 2012 by the VRA survey team and FSD (Lawra District) to the Lawra Station Forest Reserve to inspect the 0.5 km section where the sub-transmission line would traverse. The field visit was to enable the two (2) agencies have a better understanding of the impact of the project within the reserve. Issues agreed upon were as follows:

- VRA shall formally inform FSD of the project to enable them take relevant action.
- Copies of the line route map through the reserve should be made available to FSD.
- FSD to comprehensively assess the resource situation and tree species to be affected by the project for removal purposes and the cost of this borne by VRA to pave way for the construction of the Solar Power Project at Lawra,

Following this, VRA in May 2012 formally notified FSD of the project in requirements of the MoU, and FSD undertook a field inspection report. The Report indicated that the portion of the forest to be affected by the construction is relatively insignificant and the corresponding damage may not be much. FSD recommended for that the trees that would be destroyed must be paid for in line with the requirements of the MoU between VRA and FSD. VRA further in 2018 formally engaged the Lawra District Office of Forest Services Division (FSD) to undertake baseline assessment of flora and fauna resources within the proposed project sites namely; Lawra Station Forest Reserve, Lawra Solar Site, Kaleo Site 1, Kaleo Site 2 and Kaleo Site 3. The primary purpose of the assessment was to gather information on flora and fauna resources in the proposed project areas.

In August 2019, and based on EPA review comments, VRA consulted FSD about the possibility of assisting to identify areas for offsetting vegetation to be cleared under the project. The FSD official contacted was Mr. Francis Brobbey, the Lawra District Forestry Manager. FSD indicated that about 50,000 seedlings are raised annually for distribution to individual and organisations for planting. Additional FSD also undertake Youth Employment in Afforestation as well as Sustainable Land & Water Management Project. VRA could therefore provide support in any o these areas within the District as a means of offsetting the over 1,400 trees that are to be cleared under the project. VRA informed that they intend offsetting using the ongoing Volta Gorge Reforestation Programme in Akosombo but could consider the proposed options and will liaise with FSD when due.

6-9 | Page Jan. 2020

The list of FSD officers consulted so far is provided in Appendix 5 and going forward, there is the need to re-engage FSD with respect to project implementation within the Lawra Station Forest Reserve with respect to the harvesting of the economic trees within the reserve to protect its integrity.

6.7. Consultations with Water Resources Commission

All the PV sites are to be equipped with a borehole for operational and domestic use. The impact on water resource especially, ground water, is critical as water is required for cleaning of the PV modules on a regular basis. Estimated volume of water demand for wet cleaning of solar panels ranges from 19.5 m3/year to 84.5 m3/year for a duration of 20 years. There is the need to ensure that enough water is available and that there is no negative impact on the drinking water supply situation of the nearby communities which may create substantial social conflicts. In view of the this, VRA formally requested the Water Resources Commission to provide detailed information on the actual water supply situation, the risk of depletion of ground water resources and possible (negative) impacts on village water supply. In their response letter, dated March 4, 2019, WRC advised as follows:

- a. Average borehole yield is about 53.3 L/min (3.2 m³/hour) (HAP, 2011). Therefore, this yield can satisfy or meet the estimated volume of water demand of the company for wet cleaning of solar panels (19.5 m³/year to 84.5 m³/year).
- b. The abstraction rates will not have any negative stress on the aquifer. However, detailed **hydrogeological and geophysical investigations** should be employed to locate extensive fracture zones to increase the chances of drilling success and higher-yielding boreholes to meet demand.
- c. Moreover, since the abstraction rates will not have any negative stress on the aquifer, the drinking water supply of the communities involved will not be affected negatively.

6.8. Consultations with Energy Commission

As mentioned under Section 2.3.1, the Energy Commission (EC) has oversight responsibilities of the energy sector, and are responsible for the regulation, management, development and utilization of energy resources in Ghana; provide for the granting of licenses for the transmission, wholesale supply, distribution and sale of electricity and natural gas; refining, storage, bulk distribution, marketing and sale of petroleum products and to provide for related matters. The Commission performs these regulatory functions through elaboration and enforcement of technical rules.

Based on their mandate, VRA is legally obliged to acquire the underlisted permits from EC:

- a. Siting Permit
- b. Construction Permit

6-10 | Page Jan. 2020

c. Generation & Electricity Wholesale Supply Licence

It must be noted that VRA has already engaged with the Energy Commission and has obtained Siting and Constructional Permits for the 4MWLawra and 13MW Kaleo Solar Sites. VRA will also apply for the Constructional Permit for the 18MW Phase 2 development when the time is due, i.e. financial closure achieved and EPC contract executed.

6.9. Consultations with Ghana Airports Company Limited

An approximately 12.5km overhead line system outgoing from Kaleo PV substation to the 34.5 kV busbar of the Wa GRIDCo Substation is to be developed under the Kaleo Solar Power Project. This new line is expected to cross the airstrip at Wa, and as indicated earlier under Section 3.5, VRA is to formally engage with the Ghana Airports Company regarding the new line. VRA has formally requested for permission from the Ghana Airports Company, to lay the 34.5kV underground cable line under the airstrip, along the culvert as well as any compliance requirements that needs to be adhered.

6.10. Establishment of Grievance Committees

The establishment of Grievance mechanism to receive and facilitate resolution of Affected Communities' concerns and grievances about the client's environmental and social performance is emphasized under Section 35 of the IFC Performance Standard 1 (2012). Consultations with the elected representatives of the communities, specifically the District Chief Executives of the Lawra District and Nadowli/Kaleo District Assemblies as well as elected representatives from Lawra and Kaleo communities on the Local Government, known as Assembly persons / Unit committee members was undertaken with a view of collating social information as well as informing them about the project and its impacts on the community members and to request them to represent as Grievance Committee Members. Till date, VRA had identified the following persons as key in the two (2) project communities to perform the functions of Grievance Committees as shown in Table 6-2. The membership is to be updated depending on the contingencies of the time during implementation.

Table 6-2: Proposed Grievance Committee Members

Community	Name of Assemblyperson	Position	Contact number	
Kaleo	Hon. Katherine T. Lankono	District Chief Executive	• 0207444484	
	 Hon. Ngminnie A. Noah 	 Kaleo East Assemblyman 	• 0247697937	
	Nana Oboabeng Aberi	CID, Ghana Police Service	• 0241103797	
Lawra	 Naa Puowele Karbo III 	Lawra Naa	• 0244805521	
	Martin Domotier Bomba-Ire	Municipal Chief Executive	• 0244985706	
	Hon. David Y. Kuudegi	Yagpelle Assemblyman	• 0208816135	

Members of the Grievance Committee are expected to assist VRA in the following ways.

- Serves as a liaison between the community members and VRA
- Address misleading issues/problems if any.

6-11 | Page Jan. 2020

- Bear witness to any damages and compensations to be paid.
- Identify and testify rightful owners of properties.

6.11. Public Disclosure

Disclosure of EIA information is part of the process of identification of impacts and risks. With respect to public disclosure under the EIA Study, the Draft PEA Report was publicly disclosed in the national dailies in July 2012 for comments, and a copy of this publication was provided in the Updated PEA Report. VRA in October 2017, again publicly disclosed the Final Updated PER and the associated stand-alone Non-Technical Summary (NTS) Report to enable the public make inputs or provide review comments, latest by November 30, 2017. Copies of the Public Disclose Notices have been made available in the project Final EIA Report.

The Draft EIA Report for the 35MW Solar project was also publicly disclosed in the Daily Graphic and the Ghanaian Times, the two (2) most widely circulating newspapers in the country, in June 2019 and copies made available at the under-listed locations for the public to assess and provide any review comments²:

- E-copy on the VRA Corporate website at www.vra.com
- EPA Head office in Accra
- EPA Upper West Regional Office in Wa
- Lawra District Assembly
- Nadowli-Kaleo District Assembly
- Paramountcy of Lawra Naa

Comments were to be provided to the EIA team at the address, tel./fax numbers or e-mail address provided below. It must be noted that no comments had been received from the public by the close of the deadline of July 31, 2019.

The Chief Executive
Volta River Authority
P. O. Box MB 77, Accra
Tel No: +233-302-664941-9
Email: corpcomm@vra.com

² See Appendix 6 for copy of the Public Disclosure Notice for the 35MW SPP - UWR

6-12 | Page Jan. 2020

6.12. Acquisition of Permits & Licensing

The necessary statutory permits and licenses that must be acquired for the construction and operational/maintenance phases of the solar power project are as follows:

- a. Environmental Construction/Operational Permits from the EPA
- b. Siting Permit from Energy Commission
- c. Construction Permit from Energy Commission
- d. Building Permits from Lawra Municipal & Nadowli-Kaleo District Assemblies
- e. Water Use Permit from the Water Resources Commission
- f. Fire Permit from the Ghana National Fire Service
- g. Generation & Electricity Wholesale Supply Licence from Energy Commission

VRA has consequently embarked on relevant activities to ensure all required permits have been obtained and has engaged all the state agencies involved to discuss modalities. Currently, legal approvals and permits such as the Siting and Constructional Permits from the Energy Commission as well as the Environmental Permit from the Environmental Protection Agency have been acquired^{3.} VRA acquired the Building Permits for the Lawra and Kaleo Solar Power Sites from Lawra Municipal and Nadowli-Kaleo District Assemblies respectively in October 2017 and these are available in the Final ESIA Report. It must be noted that except for the Building Permit, all the above-mentioned permits are to be continuously renewed during the lifetime of the project.

6-13 | Page Jan. 2020

³ See Appendix 1 for the Constructional and Environmental Permits

Chapter 7 – STAKEHOLDER ENGAGEMENT PROGRAMME: FUTURE PLANS & METHODS

7.1. Introduction

Currently, the project is at its constructional phase and engagement activities undertaken during the design and EIA phases have been indicated under Chapter 6. VRA will continue to develop and build constructive relationships with relevant stakeholders on an ongoing basis throughout the life of the Project.

7.2. Key Issues

An important element of the EIA Process is to evaluate the issues raised through the interactions with authorities, the public, the specialists on the EIA team and the project proponent. In accordance with the philosophy of Integrated Environmental Management, it is important to focus the EIA on the key issues, such as those issues that are considered critical for decision-making. To assist in the identification of key issues, a decision-making process is applied to the issues raised, based on whether or not the issue falls within the scope and responsibility of the proposed project of whether or not enough information is available to respond to the issue raised without further specialist investigation.

Based on the issues raised at the project briefings during the design and EIA Phases, status quo conditions of the study area and the nature of the proposed development, the key issues of concern that must be considered regarding stakeholder's engagements during project implementation are summarized as below:

- Effective Community Entry by Project Contractors
- Employment for Community Members
- Social Investment Programme
- Availability of Grievance Redress Mechanism
- Land Acquisition & Compensation for Loss Property
- Risk to Public Safety, Community Health & Security Issues
- Continued Engagement During Construction & Operational Phase
- Effective Monitoring & Evaluation Process
- Acquisition of Permits

To address the above, further consultation is planned to refresh the project information and to disclose the mitigation and other management plans upon commencement of constructional activities. The following activities are to be undertaken as part of the next steps engagements:

7.3. Effective Community Entry by Project Contractors

Community entry is critical for acceptance of the project by the community members. In the various discussions, the community members have requested that prior to project execution, VRA should endeavor to introduce the EPC contractor to the District Chief Executive and Traditional authorities.

7-1 | Page Jan. 2020

The following actions must be implemented:

- VRA should give a formal notification of the Lawra and Nadoli-Kaleo District Chief Executives on the date of project commencement. The letter should be copied to the traditional authorities.
- Self-introduction of EPC Contractor to the DCEs on arrival of onsite prior to project implementation.
- Self-introduction of EPC Contractor to traditional authorities in Lawra and Kaleo on arrival of onsite prior to project implementation. It's important that the platform is created for the various parties to provide information on concerns that needs to be considered during the project implementation and to agree on grievance redress mechanism in place. It must be noted that there are two (2) factions to the traditional authority at Kaleo and therefore both need to be recognized in the process to avoid conflict.
- VRA / EPC Contractor must observe all necessary traditional requirements prior to project commencement.

The above activities were performed from August 27-29, 2019 and therefore have been completed.

7.4. Employment for Community Members

Throughout the construction and operations phase of Solar Project, VRA shall adopt the requirements if its Local Content Policy as well as Local Content & Local Participation (Electricity Supply Industry) Regulations, 2017, LI 2354. In this respect, the following recruitment and training practices are recommended to be develop:

- Give preference to the employment of local citizens as much as possible, including preparing a detailed training program for construction and operations with a view to ensuring the development of suitable and qualified Ghanaian personnel over time at all levels.
- Use local employment and sourcing policies to give priorities to people within the two project communities specifically and the Nadowli-Kaleo District and Lawra Municipal in general.
- As discussed during the stakeholder hearing events, strategies adopted under the Navrongo Solar Power Project in the recruitment of locals should be used as an example for adoption under this project.
- Announce job opportunities via both the electronic and print media.
- Improvement of local skills through training to maximize local employment and facilitate economic development initiatives that benefit both Ghana and the Lawra and Kaleo communities.
- Procure food stuff and fish from the local communities, thus providing a source of income for such communities. Regarding this, food vendors from the local communities must be encouraged to sell their food to workers at designated places within the project site.

7-2 | Page Jan. 2020

 Investment in local businesses, mainly Small and Medium Enterprises (SMEs) to upgrade their ability and increase the amount of goods and services sourced from local communities.

7.5. Social Investment Programme

The community members were very keen in benefitting from any social investment programmes of the VRA. There is therefore the need to ensure early implementation the VRA Community Development Programme (CDP).

Details of how the CDP is to be implemented has been provided under Section 8 of this report.

7.6. Availability of Grievance Redress Mechanism

The VRA Community Relations Officer and Project EHS officer should have good rapport with the Grievance Committee Members to serve as liaison between the communities and VRA. These officers should be conversant with the Ghana EPA Grievance Redress Mechanism – Operational Manual (June 2016) to ensure effective implementation. Any mediation process shall be confidential, transparent and objective, as well as accountable, easy, fast, accurate and participative.

Details of how grievance mechanism is to be implemented has been provided under Section 9 of this report.

7.7. Land Acquisition & Compensation

Compensation for land has been made. The Traditional authorities were emphatic about their willingness releasing to release more lands for similar actions for the benefit of the community. With this goodwill, there is the need for VRA to meaningfully engage the traditional authorities and District Chief Executives on one hand and the landowners on the other for any additional lands required for the projects.

7.8. Risk to Public Safety, Community Health & Security Issues

To ensure community Safety, Health and Security, the following actions are recommended:

- Assign a community liaison person to liaise with the EPC Contactor, Paramount Chief and the District Chief Executive upon commencement of the project.
- EPC Contractors' workforce to desist from irresponsible sexual behavior during project implementation through sexual health education events. It is highly recommended that VRA seeks the assistance of the respective District Health Service in execution of any health education programme for the workers.
- VRA to provide effective security measures for the PV Plants and the project sites through fencing, enough security staff and other measures such as floodlights with motion control.
- A buffer zone must be created around the project site at Kaleo to restrict impacts of the project on community members.

7-3 | Page Jan. 2020

- VRA to acquire fire permit for the solar power projects prior to project implementation to ensure fire safety.
- EPC Contractor to train personnel of the Ghana National Fire Service on how to deal with fire resulting from Solar Projects as part of the requirements for the Engineering, Procurement and Construction (EPC) contractor.
- VRA to preserve the nearby water body at the Lawra project site by creating vegetation around the water body, if required.
- Provide an alternative access route to the nearby local resort at the Lawra site, if required, as the route to the local resort has been identified to be outside the project area at Lawra.
- Development and dissemination of international best practices regarding working conditions, health and safety and overall management practices to VRA and the EPC Contractor workforces.
- Use of Local Goods and Services to provide opportunities for local business participation with VRA's programmes.

7.9. Continued Engagement During Construction & Operational Phase

Engagement during the construction and operation process aims to maintain links with all stakeholders to ensure that impact mitigation is being implemented as planned. Stakeholder engagement during the construction phase will relate to all activities leading up to and during the physical construction of infrastructure as well as the management of contractors and construction contracts. Engagement during construction is essentially about involving stakeholders in assessing whether measures are working as intended, being responsive to grievances, and identifying alternatives where there are failings. VRA recognizes that effective engagement with stakeholders during construction phase will set the tone for community, local government, and other external relationships for the life of the Project.

Project information meetings are the most common method of engagement. Such meetings include the regular meetings that have been taking place since 2012 between VRA and other state institutions, as well with communities on different topics such as land use, EIA disclosure, EIA process and preparation, pre-baseline survey meetings; and meetings with KfW representatives with communities during the VRA/KfW project review visits, etc.

Prior to the start of construction, VRA Project Team will identify stakeholders likely to be affected by construction and their concerns prioritized. Concerns and issues of risks to women and vulnerable groups will be given high priority. VRA will engage and continuously consult potential project affected stakeholders notifying them of construction timelines and any potential changes to the relevant schedules. For communities living near to the select project site, the effects of noise, dust, vibration, traffic, and lighting associated with construction can cause disturbances and emotional stress, as well as pose a physical or health hazard. Notification will be communicated in the following areas:

• The purpose and nature of the construction activities.

7-4 | Page Jan. 2020

- The start date and duration of planned construction activities; and
- Potential impacts and proposed mitigation measures.

The above information will be communicated using various means including the VRA website, roadside signs near construction sites, poster boards in public places, newsletters, door-to-door leaflets distribution, radio messages, mobile public address systems, and via stakeholder representatives or public meetings. This campaign will be led by contractors under supervision of the VRA Project Team. This information will be communicated in a form and substance acceptable to the affected groups. To ensure that specific sections of the community who may include youth, women, the elderly and any other vulnerable persons are engaged, focus group discussions will be held to facilitate open discussions and to ensure that their views are heard.

Prior to the start of construction, VRA will organize a training session for contractors and their subs as appropriate on good practice stakeholder engagement. Expectations of VRA for effective stakeholder engagement with affected communities by the project managers, supervisors, and field staff will be presented for the understanding of all for effective implementation.

During construction, it is typically the contractors and subcontractors who have day-to-day contact with local stakeholders. The quality of their interaction with the affected communities, government authorities and other stakeholders will reflect directly on the project and can have reputational consequences for VRA. Developing prequalification appraisal criteria and related questionnaires that assess the capability of the main contract bidders to meet minimum standards for stakeholder engagement and social performance can help in the selection process. During this period, VRA should continue to conduct stakeholder engagements to inform and seek feedback from communities on social and environmental progress of the project, address questions. The frequency of stakeholder engagement needs to be maintained or increased as the project transitions from construction to operations. It is envisioned that during the construction phase the stakeholder engagement activities will be expanded to address specific issues such as local labour recruitment and training opportunities. Landowners and affected individuals will be invited to meetings as and when required. Specific attention will be given to the two (2) elderly women who were engaged in farming activities on the Kaleo Site. Focus-group meetings to explain sensitive issues around impact and mitigation (water management, biodiversity, noise-dust-vibration, visual and ecosystems services) will be organized, as relevant.

7.10. Specific consultation with Key State Agencies

Biodiversity-related consultation should take place with Forest Services Division to review proposed actions for sustaining priority ecosystem services. VRA is to pay FSD for all economic trees that a felled on the Lawra Forest Reserve, and the Project Team in conjunction with FSD will have to enumerate such trees during the construction of the transmission line. Also, of key importance is the provision of tree seedlings to offset the over

7-5 | Page Jan. 2020

1400 trees that will be cleared from the project site. As indicated earlier, VRA has formally requested for permission from the Ghana Airports Company, to lay the 34.5kV underground cable line under the airstrip, along the culvert as well as any compliance requirements that needs to be adhered. It is therefore important for a continued engagement with the Ghana Airports Company Limited on the subject as the Wa Airstrip is currently being used for commercial purposes.

7.11. Public Disclosure

As the Project is expected to create ongoing impacts and risks which will be properly mitigated and managed as explained in the impact assessment, VRA will continue to provide information during the life of the Project. The Final EIA Report would be used to replace the Draft EIA Document on the corporate website. In addition, the NTS Report will be updated and placed on the website in conjunction with this SEP. All comments received following the release of the EIA Report, NTS and SEP, through meetings and written correspondence will be reviewed and addressed as necessary. Going forward and as part of the disclosure processes, VRA will also give approval for KfW Group or any potential funding agency to publicly disclose the EIA Report, NTS and SEP on their online portal.

7.12. Effective Monitoring & Evaluation Process

The stakeholder engagement activities should be periodically monitored and evaluated. by the VRA Project EHS Officer. Details of how the monitoring and evaluation will be implemented has been provided under Section 10 of this report.

7.13. Acquisition of Permits

A Water Use Permit is to be applied for from the Water Resources Commission during project construction after a detailed hydrogeological and geophysical investigations is employed to locate extensive fracture zones to increase the chances of drilling success and higher-yielding boreholes to meet demand. A Generation & Electricity Wholesale Supply Licence and Fire Permit is to be obtained from the Energy Commission and the Ghana National Fire Service respectively during operation and maintenance phases.

As has been indicated, except for the Building Permit, all the regulatory permits outlined in Section 6.12 expire are to be continuously renewed during the lifetime of the project.

7-6 | Page Jan. 2020

CHAPTER 8 – SOCIAL INVESTMENT PROGRAMME

Social investment programs seek to minimize, mitigate and compensate any adverse social impacts generated by its activities, and to enhance beneficial social impacts here possible and in accordance with internationally recognized business best practice. VRA in 2012 launched Community Development Programme (CDP) to enhance the Community Development Initiative programme initiated in 2003. The primary goal of the CDP is to continue to maintain mutually beneficial relationships with the communities in which the VRA has carried out its primary operations since its establishment in 1961. The CDP covers areas such as Social infrastructure Projects, Environmental Protection Activities, Industrial Attachments, Education Scheme, Health, and Support for cultural activities for all VRA's operational areas at the project areas. The CDP therefore serves as a social investment programme for the VRA.

The principal objectives of the CDP are:

- To ensure that VRA fulfils its statutory and other negotiated obligations to the communities which are affected by its operations.
- Coordinate the implementation of programmes and activities with the communities.
- Obtain insights into the key issues and concerns of the communities to ensure that VRA
 is responsive to the needs of the communities.
- Develop public education programmes to increase, improve and enhance relations between VRA and the communities.

The CDPs major focus is to cover all affected communities such as those impacted by the Authority's operations as well as those hosting the VRA's facilities. Strategies that VRA has adopted in implementing the CDP are:

- To partner with local government and agencies for specific activities listed under the CDP
- To have an Open-door policy in dialoguing with all VRA impacted communities on CDP
- To develop a communication plan for every project executed under the CDP
- To collaborate with the Media on CDP

VRA is committed to investing in the CDP for the affected communities across the life of the Project. With respect to the project, the following actions are to be implemented:

- Appointment of a VRA Community Relations Officer for the Upper West Region to serve as liaison between the communities and VRA.
- Engagements with Kaleo and Lawra traditional authorities and heads of state agencies on the modalities to apply and benefit from the CDP, as part of the partnership arrangements.
- Extend VRA Employee Volunteerism Program to the educational institutions in Lawra and Kaleo.

8-1 | Page Jan. 2020

Chapter 9 - GRIEVANCE REDRESS MECHANISM

9.1. Overview

A grievance is any query, call for clarification, problems, and concerns raised by individuals or groups related to activities undertaken or processes applied by the project. Timely redress of such grievances is vital to the satisfactory implementation of resettlement and to completion of the project on schedule". When addressed these grievances are expected to ensure support, as well as help achieve results and sustainability of project activities. The establishment of Grievance mechanism to receive and facilitate resolution of Affected Communities' concerns and grievances about the client's environmental and social performance is emphasized under Section 35 of the IFC Performance Standard 1 (2012). A Grievance Redress Mechanism (GRM) is therefore a system by which queries or clarifications about a project are responded to, problems that arise out of implementation are resolved and grievances are addressed efficiently and effectively. An effective and efficient GRM should have multiple avenues or channels for lodging complaints, transparency, promptness and timeliness of responses and clear procedures.

The grievance mechanism established for the project is therefore is a formal procedure through which communities and individuals affected by VRA's activities can formally communicate their specific concerns and grievances to the company and facilitate resolutions that are mutually acceptable by the parties and within a reasonable timeframe. The overall objective of the GRM is to provide an effective, transparent and timely system that would give aggrieved persons redress and avoid litigation, minimize bad publicity, avoid/minimizes delays in execution of infrastructural works, ensures public health and safety, and sustainability of the Project.

Every effort will be made to

- Provide accessible ways for affected persons to voice complaints or resolve any disputes that might arise related to project implementation.
- Seek solutions to any tensions and conflicts early on in the implementation process, to avoid a 'firefighting' approach.
- Identify and implement appropriate and mutually acceptable actions to redress complaints.
- Respond in a timely manner, and with sensitivity to the needs of complainants
- Ensure that claimants are satisfied with the outcome of the corrective actions, and maintain a dialogue with them to the extent possible; and
- Avoid resorting to a high level of adjudication, such as judicial proceedings, as much as possible.

9-1 | Page Jan. 2020

9.2. Anticipated Categories of Grievances

In practice, grievances and disputes that may be anticipated under the project at this stage are the following:

- Employment and labour Issues
- Damages occurring during Site clearance and construction.
- Requests for information.
- Unsatisfactory reinstatement of temporarily used land.
- Confusion between legal occupants and informal occupants.
- Forged documents (identification, ownership or others);
- Disputes between heirs or shareholders in the disputed property, particularly when such occur after identification and before payment.
- Matters related to environmental and social impacts such as waste generation and disposal; Pollution (air, noise, water, land);
- Community Health and Safety Issues such as transmission of infectious and endemic diseases including STD/HIV, Malaria and Tuberculosis.
- Traffic congestion.
- Security Issues

9.3. Grievance Redress Process

Currently, a Grievance Redress Mechanism – Operational Manual (June 2016) has been released by the Ghana EPA. The Manual seeks to ensure an efficient and transparent execution of the GRM process and was developed to provide a standardized mode of addressing grievances across board. It is therefore planned that the strategies recommended in the Operational manual is to be adopted by the VRA in project implementation.

The GRM will provide all persons and groups affected by the proposed project avenues through which they can express their concerns and receive the needed corrective actions in an appropriate and timely manner. Recommended steps for grievance redress mechanism outlined in the manual are as follows:

- Receive and register grievance
- Acknowledge receipt of grievance
- Access and assign grievance for investigation
- Investigate grievance
- Select a resolution option
- Formulate and communicate response
- Institute resources or appeal mechanism
- Follow up and close out
- Monitor, report and evaluate the GRM.

Sample formats for the Grievance Procedure Form to be utilized by the project to record and register complaints as provided in the GRM-Operational Manual is now to be adopted for the

9-2 | Page Jan. 2020

project and are provided as Table 9-1 and Table 9-2. It outlines where to go, whom to talk to if there's a complaint, and understand what the process will be for handling it. VRA will make public the GRM through various media in a form and substance culturally acceptable to all project affected persons and other stakeholders. This will include publishing it on VRA website for the information of all interested and affected parties.

In addition, for project affected persons and communities who may not have direct access to the internet or have difficulty understanding the English Language, VRA will simplify the contents of the GRM in locally accepted languages agreed with the affected parties. This will ensure that approaches, ways and contact information both at project locations and at VRA office for seeking redress is clearly spelt out. The principal issues to be covered by the GRM would be related mainly to land acquisition and compensation, construction and operation related issues.

The GRM will be publicized as part of the project information at various meetings and explained to relevant stakeholders. All formal grievances will receive a formal written reply within seven (7) working days. In all cases VRA will state the date of the resolution. The final response will provide additional information or, if appropriate, further instructions on proposed measures to resolve the issues. VRA will make concerted efforts to resolve grievances amicably; yet, if a grievance cannot by resolved, VRA will seek to involve other individuals or agencies, as necessary.

A database will be developed of all recorded grievances. In receiving the grievances of vulnerable affected persons (e.g. women, those over 60, the illiterate, or the physically challenged), VRA will pay careful attention to any special needs, difficulties or concerns that they may have. The grievance procedure is to be used by anyone without any concern or fear of retribution.

9-3 | Page Jan. 2020

Table 9-1: Sample Format of Grievance Register

Ref.	Date of	Particulars of Client			Particulars of Grievance					
No.	Receipt	Name	Address	Phone No.	Whether acknowledgement given at the time of receipt (Yes/No)	Subject of the grievance	Office	Brief Description	Date of Acknowledgment / Date of redress	Immediate action taken

Table 9-2: Sample Form for Assessing Grievance

Ref. No	Date & description of	Grievance Prone Area	Root Cause	Action Required to	Planned date and Authority	Action Taken
	Grievance	Identified	Identified	Improve System	Responsible for Taking Action	Date

9-4 | Page Jan. 2020

Chapter 10 - MONITORING, REPORTING & EVALUATION

10.1. Monitoring

VRA believes monitoring of its environmental and social commitments has the potential of strengthening engagement with its stakeholders by increasing transparency and promoting trust. It also increases accountability of the project and the credibility of monitoring results. This process can encourage local stakeholders within the project's area of influence to take greater degree of responsibility for their environment and welfare in relation to the project, and to build their capacity to address issues that affect them.

Project monitoring will be centred on land acquisition and compensation issues as well as community health and safety impacts. Impacts and risks related to pollution and waste management, community-worker relationships, management-worker relationships, management of drains and open trenches that serve as breeding places for mosquitoes and compliance with contractor work schedules and how they impact on local community activities will also be monitored. Others will include:

- Monitoring formal and informal consultation activities conducted with stakeholders.
- Monitoring the effectiveness of the engagement processes in managing impacts and expectations by tracking feedback received from engagement activities and recording and tracking commitments made to stakeholders; and
- Monitoring any grievances received and their resolution.

Key performance indicators that will inform the monitoring activities will include, but not limited to, the following:

- Community attitudes, perceptions and feedback regarding the project.
- Nature of issues being raised, and questions asked about the project.
- Number of grievances identified by local community and time taken to resolve grievances.
- Nature and number of meetings/consultations held with PAPs and level of participation by specific stakeholder groups.
- Nature of community engagement activities and feedback from activity participants.
- Effectiveness of public consultation and communication activities.
- Positions taken and feedback given by local and regional government officials and agencies.
- Nature of feedback from civil society, NGOs, and advocacy groups about project.
- Type of press, media reports and involvement related to project.

Since monitoring for environmental and social risks and impacts require some skill and level of understanding of the issues to be monitored, VRA will provide capacity building for representatives of the stakeholder groups on issues to be monitored and monitoring indicators including visual inspection around these issues. Visual field guides will be provided to stakeholder groups involved in monitoring to assist in monitoring and to ensure fair, objective, and transparent outcomes of the monitoring activities.

10-1 | Page Jan. 2020

VRA expects to receive objective assessment and feedback of its environmental and social mitigation measures, incorporate the concerns and inputs of stakeholders, report back to them and build strong local stakeholder support for its activities on on-going bases within the life of project. Joint monitoring involving all stakeholder groups as indicated above shall be organized bi-annually. However, for any issue requiring immediate attention such as accidents, major spills, and community agitations and unrest with respect to the practices of contractors, VRA shall convene an emergency joint monitoring involving the identified stakeholders to ascertain the issues and provide a resolution as needed.

10.2. Stakeholder Tracking and Response

In order to keep track of stakeholder engagement with the project, all issues and grievances raised by stakeholders will be recorded in a logical and systematic way. Feedback or observations from stakeholders will be recorded and passed on to the appropriate VRA official for the necessary response or action. Where questions are raised a response will be provided in an appropriate manner. If a comment or feedback is judged to constitute a grievance it will be handled through the Project's Grievance Mechanism. Results of stakeholder tracking will be used in reviewing the SEP and in reporting on the project as a whole.

10.3. Feedback Mechanism

Sound consultation practice requires feedback processes to inform all (i.e. project managers/officers, contractors and consultants) how stakeholders reacted to consultation process and let stakeholders know how their input was used. Without a feedback, stakeholders will assume that VRA is not listening. A feedback mechanism would thus be instituted to enable VRA inform participants of the decisions taken and the rationale for them and follow up on other consultation matters as needed.

To maintain an open communication between the staff and management on key environmental, health and social issues the followings are to be used:

- Team Briefings
- Onsite work group meetings
- Work specific instructions
- Meeting with stakeholders

10.4. Reporting Stakeholder Engagement Activities

As indicated earlier, implementation of this plan will be reviewed annually (or as may be necessary). A stakeholder engagement report will capture all engagement activities for the period, and provide a summary of issues raised by stakeholders, subjects of grievances, a summary of key actions taken to address concerns including timeliness of responses, analysis of trends in key performance indicators and plans for engagement in the next period. Information from the stakeholder engagement reports will be incorporated in the annual project report that VRA will prepare. The stakeholder engagement report includes

10-2 | Page Jan. 2020

information on attendees/consultees, location/place, timing, and information exchanged and the issues discussed for each consultation or meeting. Digital photographs will be taken where appropriate and will be attached to the written record.

10.5. Reporting to Stakeholders

VRA's principal objective of reporting to stakeholders is to inform the various groupings as to how their suggestions have been taken on board, what risk or impact mitigation measures will be put in place to address their concerns, and how project impacts are being monitored. It is also aimed at improving transparency in VRA's operations with its stakeholders, promote trust, and strengthen engagement with stakeholders within the life of the Project. In reporting to stakeholders on project planning and implementation, especially with respect to how issues of concern to them have been taken on board, VRA has considered the following internationally accepted good practice:

- Determine what information needs to be reported to which stakeholders, by what method and frequency of reporting.
- Disclose progress to affected and interested parties. In particular, publicize any material changes to commitments and/or implementation actions that vary from publicly disclosed documents.
- Make monitoring results publicly available, especially reports of any external monitors.
- Regularly report on the process of stakeholder engagement, both to those stakeholders who are directly engaged, and to other interested parties.
- Translate information reported to stakeholders into local languages and easily understandable formats.

Project Annual Environmental Reports are to be submitted to the Ghana EPA and the Energy Commission, as required by regulatory permits.

10.6. Evaluation & Review

It is recommended that the following indicators should be used for evaluation:

- Level of understanding of the project by stakeholders as determined through random surveys conducted in the affected communities on a bi-annual basis using a short questionnaire.
- Monthly review of grievances received and how they have been addressed, including analysis of the time taken to resolve the grievances; number of grievances resolved to the satisfaction of the original party; categorisation in themes of complaints identifying areas for improvements. This will include grievances submitted directly to VRA and those submitted to contractors; and
- Level of involvement of affected people in committees and joint activities and in the project, itself.

To measure these indicators, the following data are to be used:

Issues and management responses linked to minutes of meetings.

10-3 | Page Jan. 2020

- Feedback from primary stakeholder groups (through interviews with sample of affected people); and
- Grievance registers from VRA and contractors.
- These evaluation reports will be presented to the Project Team, including that the EPC Contractor, on a quarterly basis.

The SEP will be reviewed every year (or as the situation may demand) to evaluate whether the engagement process has been, or is likely to be, successful and whether engagement mechanisms need to be refined. Measurement of the success in meeting the objectives of the engagement plan could be challenging since the outcomes are largely intangible e.g. improved awareness. As such, the review process will be limited to a qualitative assessment against the success measures, as shown in Table 10-1.

Table 10-1: Evaluation Criteria

Objective	Measure of success		
Obtain social license to operate	Limited number of grievances and positive		
	perception of project by stakeholders		
Improve working relationships	Appropriate and ongoing relationships with		
	stakeholders devoid of conflicts		
Improve communication channels	Stakeholders satisfied with quality of open dialogue		
	and information sharing		
Increase awareness of the project's	Increased stakeholder awareness of project and its		
activities	operations		
Increase stakeholder participation	Stakeholders feedback on project plans and activities		
in the project	to inform decision making		
Institutionalize a formal	Relevant processes / activities documented, and		
stakeholder consultation process	issues / grievances captured		

10-4 | Page Jan. 2020

Chapter 11 STAFFING, RESPONSIBILITIES AND CONTACT DETAILS

11.1. Organizational Structure

To ensure the efficacy of environmental and social management of the project, certain institutional mechanism with well-defined roles and responsibilities is essential for effective implementation of identified mitigation measures both during construction and operation phases. Environmental based organizational structure of VRA for the constructional and operational phases of the project has been outlined in the Final EIA Report. The chart details the position of key personnel responsible for stakeholder engagement process and play various roles in the environmental and social management implementation. These personnel are the Manager, Projects; Manager, Environment & Social Impact; Project Environmental, Health & Safety (EHS) Officer; and Project Community Liaison Officer (CLO). In the absence of the jobholder, the relevant manager or subordinate undertakes the assigned duties or delegates as required.

11.2. Role of Manager, Projects

Manager, Project's functions within the SEP include:

- Overall responsibility for handling the consultation and information disclosure process, including organisation of the consultation process, communications with identified stakeholder groups, collecting and processing comments / complaints, and responding to any such comments and complaints.
- Oversee the internal grievance mechanism for workers of the EPC Contractor to ensure it follows the mentioned requirements and is properly implemented.
- Responsible for organisation of all high-level stakeholder engagement and liaising with all relevant regulatory bodies.
- Once the Project is in construction, Manager, Project's will also oversee ensuring that any external grievances received by the contractor are dealt with by VRA.
- Depending on the nature of a comment / complaint, some comments or complaints will be provided to the appropriate person in the company for a response.

11.3. Role of Manager, Environment & Social Impact

Manager, Environment & Social Impact functions within the SEP include:

- Provide lead role in collaborating with the EPA, Lands Commission, Forestry Services Division.
- Lead design, management, implementation & evaluation efforts for projects under the Community Development Programme.
- Monitor project implementation (assessments, evaluations, CDPs, etc.) through site visits, regular meetings with stakeholders; as needed, adjust program/evaluation scopes to improve performance, establish a timeline for program evaluation.
- Track and update the stakeholder data base, the grievance data base, follow up actions.
- Review annual environmental reports and other materials for community disclosure.

11-1 | Page Jan. 2020

11.4. Role of Community Liaison Officer

Within the SEP, the CLO's main functions include the following:

- Stakeholder engagement & interaction with affected communities
- Outreach and communication assist organizing and administering surveys and studies:
 questionnaire, data collection and capture, field work coordination
- Oversee performance of Contractors EHS and the operations of EPA Contractor
- Work with Assemblypersons of Lawra and Kaleo to promote project-related information provision, collection of data (for example, on vulnerable groups or lands);
- Oversee community development programs implemented in communities.

11.5. Role of Project Environment, Health & Safety Officer

The Project EHS Officer functions within the SEP include:

- Undertake direct liaison activities with communities, traditional authorities and project affected persons, etc.
- Assist in the education and training of project staff in environmental, social and safety awareness.
- Ensuring project's compliance with all relevant environmental, social, health and safety regulations.
- Make budgetary provisions for projects' environmental and social programmes, including the CDP actions.
- Undertake monitoring activities for the SEP.
- Compile and update the stakeholder data base, the grievance data base, follow up actions
- Prepare topical and annual environmental reports and other materials for community disclosure.

11.6. Contact Details

Any suggestions related to project's activities, as well as grievances, can be sent to:

Address: Volta River Authority, Electro Volta House, 28th February

Road, Ministries, P. O. Box MB 77, Accra

Digital Address System: GA-145-7445
Tel: +233-343-020620
Fax: +233-30-2662610
WhatsApp/SMS: +233-501-620439

Email: dengsd@vra.com / corpcomm@vra.com
Contact Officer: Director, Engineering Services Dept.

Stakeholders are also invited to review and provide feedback on this SEP.

11-2 | Page Jan. 2020

Chapter 12 - CONCLUSION

Having recognized the importance of stakeholders in the successful implementation of the 35MW Solar Power Project, VRA has prepared this Stakeholder Engagement Plan (SEP) to guide the company on how to consult and engage with project stakeholders so as to solicit their feedback regarding impacts of the project on their livelihoods in particular and the environment as a whole. The planned stakeholder consultation and engagement will be implemented within the framework of VRA's project at Kaleo and Lawra in the Nadowli-Kaleo and Lawra District respectively of the Upper West Region of Ghana.

VRA's stakeholders include persons and communities who will be directly affected by the project, traditional authorities who have traditional control over the project site, local government authority, government institutions in the areas of environment, energy and forest resource management. These stakeholders have been identified based on issues related to the project's scope of work, location, the traditional setting of the project area, contributions to the project, institutional mandates, ability to slow or halt the project outcomes and previous consultations carried out since the inception of the project. The stake of these stakeholders has been analysed and appropriate approach or measures have been proposed for their engagement.

VRA has and will continue to consult and engage with its stakeholders since the inception of the project. Consultation was carried out during the conduct of the Project's EIA stage. Consultations during the EIA included consultation with the traditional authorities (chiefs, landowners, elders, opinion leaders) of Kaleo and Lawra, project affected persons from the project host-communities, Nadowli-Kaleo and Lawra Assemblies, as well as institutions such as the EPA, Ghana Civil Aviation Authority, Lands Commission, and the Forest Services Division. Engagement with various stakeholders is ongoing as an important project activity. This plan has therefore been developed to guide effective engagement with the stakeholders, with the aim of ensuring that the project remains in dialogue with all interested parties and maintains a 'social licence to operate'.

It is the belief of VRA that the effective implementation of the plan as an important risk management tool will engender mutual trust and confidence with the stakeholders, particularly the host communities and affected persons; prevent litigation/conflicts relating to compensation and livelihood issues as well as environmental risks; and improve business image of the company in the eyes of the stakeholders. Furthermore, VRA firmly believes that a peaceful and informed co-existence of the project and the communities and PAPs as well as other stakeholders, will grant it a social license that is critical to the successful implementation of the project.

12-1 | Page Jan. 2020

APPENDIX

Appendix 1: Project Regulatory Permits

Appendix 2: Figures

Appendix 3: Plates

Appendix 4: Details of Key participants during the Stakeholder Engagements

Appendix 5: Issues & Responses at Community Stakeholder Engagement Events

Appendix 6: Advertisers Announcement of EIA Report for 35MW UWR-SPP

APPENDIX 1: PROJECT REGULATORY PERMITS

- a. Construction Permit for 13MW Kaleo Solar Power Project
- b. Construction Permit for 4MW Lawra Solar Power Project
- c. Environmental Permit for 35MW Solar Power Project Upper West Region



This is to certify that

VOLTA RIVER AUTHORITY

(EC/GWSL/06-13-010)

Has been granted a

CONSTRUCTION PERMIT

For its proposed project to set up a 13MWp Solar PV Power Plant at Kaleo in the Nadowli District of the Upper West Region, subject to the Conditions in the Schedule*

Permit Number:

EC/SOL/CP-12/12-19-009

Permit valid until:

12TH DECEMBER, 2020

Oscar Amonoo-Neizer (Ing.)

Executive Secretary

Date: 13TH DECEMBER, 2019

*See attached Schedule



This is to certify that

VOLTA RIVER AUTHORITY

(EC/GWSL/06-13-011)

Has been granted a

CONSTRUCTION PERMIT

For its proposed project to set up a 4MWp Solar PV Power Plant at Lawra in the Lawra District of the Upper West Region, subject to the Conditions in the Schedule*

Permit Number:

EC/SOL/CP-13/12-19-010

Permit valid until:

12TH DECEMBER, 2020

Oscar Amonoo-Neizer (Ing.)

Executive Secretary

Date: 13TH DECEMBER, 2019

*See attached Schedule



Permit No: CE0030770202

ENVIRONMENTAL PROTECTION AGENCY

Environmental Permit

ENVIRONMENTAL ASSESSMENT REGULATIONS, 1999 (LI 1652)

This is to authorize

VOLTA RIVER AUTHORITY

To commence the proposed 35MW solar power project as per the attached schedule

Located in the Kaleo District and Lawra Municipality of the Upper West Region

Ebenezer Appah-Sampong

Deputy Executive Director/Technical Services

For: Ag. Executive Director

Date Issued: December 18, 2019

Expiry Date: June 17, 2021

NB: This Permit is only valid with the attached Schedule and the Seal of the Environmental Protection Agency and conditioned upon obtaining other permits from relevant institutions among others

APPENDIX 2: FIGURES

List of Figures

- FIGURE 1: KALEO TOWNSHIP IN THE NADOWLI-KALEO DISTRICT
- FIGURE 2: THREE (3) PV SITES AT KALEO TOWNSHIP IN THE NADOWLI-KALEO DISTRICT
- FIGURE 3: LOCATION MAP SHOWING RELATION BETWEEN KALEO PV PLANTS AND NEIGHBOURING FEATURES
- FIGURE 4: LAWRA TOWNSHIP IN THE LAWRA MUNICIPAL
- FIGURE 5: PV SITE AT LAWRA TOWNSHIP IN THE LAWRA DISTRICT
- FIGURE 6: LOCATION MAP SHOWING RELATION BETWEEN LAWRA PV PLANT AND NEIGHBOURING FEATURES

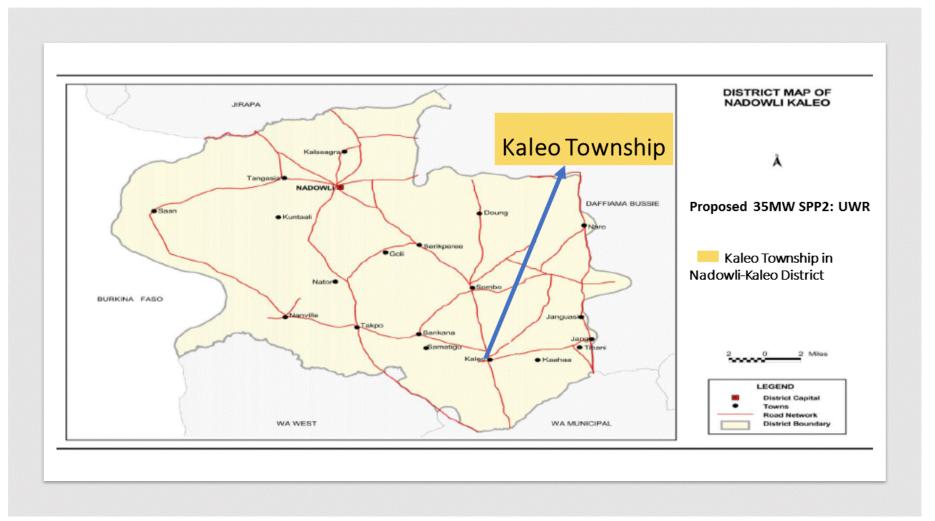


Figure 1: Kaleo Township in the Nadowli-Kaleo District

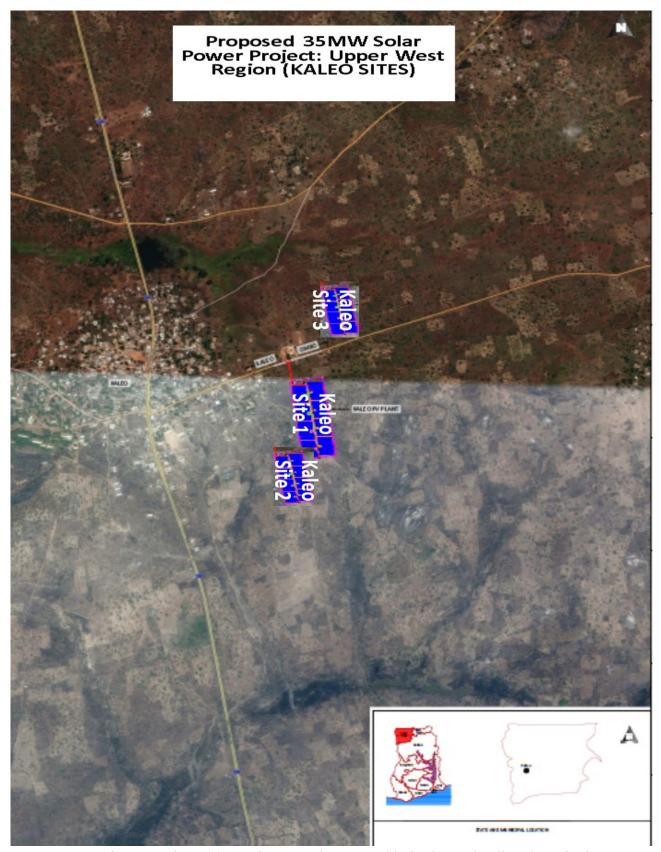


Figure 2: Three (3) PV sites at Kaleo Township in the Nadowli-Kaleo District

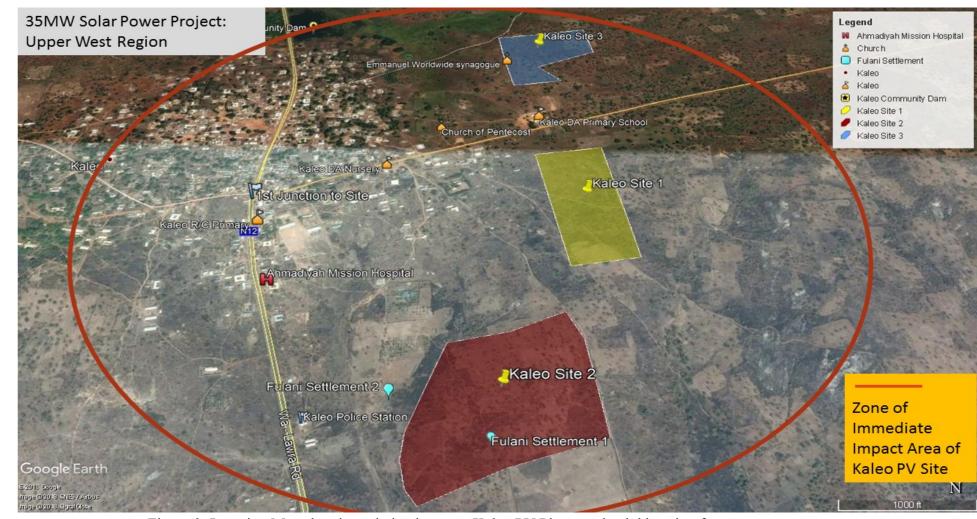


Figure 3: Location Map showing relation between Kaleo PV Plants and neighbouring features



Figure 4: Lawra Township in the Lawra Municipal

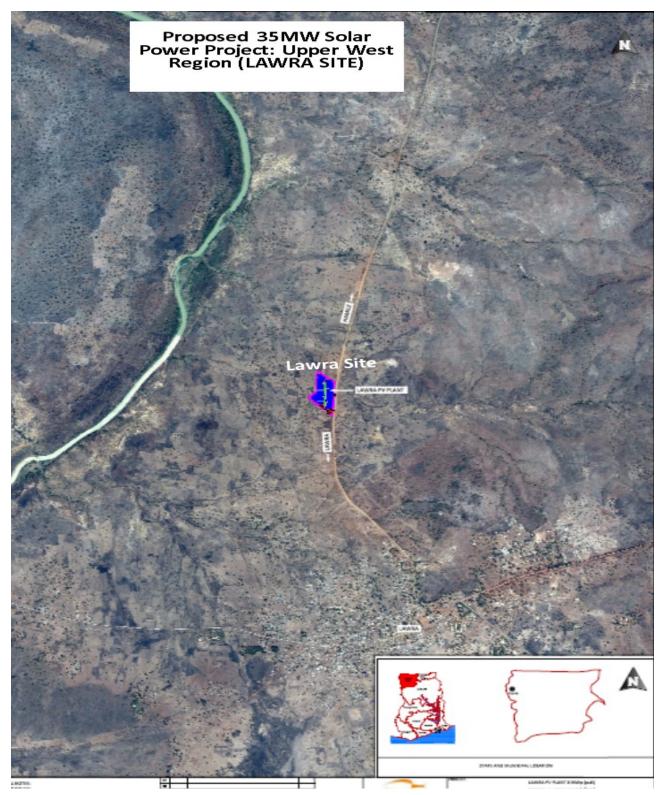


Figure 5: PV Site at Lawra Township in the Lawra District



Figure 6: Location Map showing relation between Lawra PV Plant and neighbouring Features

Appendix 3: Plates

List of Plates

- PLATE 1: TYPICAL VIEW FOR KALEO SITE 1
- PLATE 2:SITE PANORAMA IN THE CENTRE OF THE TERRAIN FACING SOUTH FOR KALEO SITE 1 & SITE 2
- PLATE 3: 360°- PANORAMA AT THE DISTRICT ROAD LOOKING SOUTH ALONG THE MV LINE FOR KALEO PV SITE
- PLATE 4: PICTURES OF PENTECOST CHURCH AND KALEO PRIMARY NEAR THE KALEO PV SITE
- PLATE 5: PICTURES OF NEIGHBOURING FEATURES OF NEAR THE KALEO PV SITE
- PLATE 6: PICTURES OF FULANI HAMLETS AND POLICE STATION NEAR THE KALEO PV SITE
- PLATE 7: SITE FOR THE LAWRA PV PLANT DURING DRY SEASON
- PLATE 8: STATUS OF LAWRA HAMILE N12 HIGHWAY ROAD, NEAR THE LAWRA PV SITE, IN 2011 AND 2018
- PLATE 9: SITE FOR THE LAWRA PV PLANT DURING WET SEASON
- PLATE 10: ENGAGEMENT WITH FEMALE FARMERS AT THE KALEO TOWN HALL
- PLATE 11: ENGAGEMENT WITH LANDOWNERS AND FULANI SETTLEMENT
- PLATE 12: HON. NGMINNIE NOAH, THE ASSEMBLYMAN OF KALEO EAST, WITNESSING THE CONSENT SHEET.
- PLATE 13: MEETING WITH NUO-IRE FAMILY, OWNERS OF KULBONUO TREE SHRINE AT LAWRA
- PLATE 14: CDM STAKEHOLDER HEARING AT KALEO IN JAN. 2012
- PLATE 15: CDM STAKEHOLDER HEARING AT LAWRA IN JAN. 2012
- PLATE 16: PRE-CONSTRUCTION STAKEHOLDER PUBLIC HEARING AT KALEO IN NOV. 2017
- PLATE 17: PRE-CONSTRUCTION STAKEHOLDER PUBLIC HEARING AT LAWRA IN NOV. 2017
- PLATE 18: MEETING WITH TRADITIONAL AUTHORITIES OF KALEO
- PLATE 19: MEETING WITH TRADITIONAL AUTHORITIES AT LAWRA
- PLATE 20: MEETING WITH THE UPPER WEST REGIONAL MINISTER
- PLATE 21: MEETING WITH DCE OF NADOWLI KALEO AT THE KALEO TOWN HALL
- PLATE 22: MEETING WITH STAFF OF THE NADOWLI-KALEO DISTRICT ASSEMBLY
- PLATE 23: MEETING WITH STAFF OF THE LAWRA MUNICIPAL ASSEMBLY
- PLATE 24: CONSULTATIONS WITH STAKEHOLDERS ON NEIGHBOURING FACILITIES



Plate 1: Typical view for Kaleo Site 1



Plate 2:Site panorama in the centre of the terrain facing south for Kaleo Site 1 & Site 2



Plate 3: 360°- Panorama at the district road looking south along the MV line for Kaleo PV Site



Plate 4: Pictures of Pentecost Church and Kaleo Primary near the Kaleo PV Site



Plate 5: Pictures of neighbouring features of near the Kaleo PV Site



Plate 6: Pictures of Fulani Hamlets and Police Station near the Kaleo PV Site







Plate 9: Site for the Lawra PV Plant During Wet Season



Plate 10: Engagement with female farmers at the Kaleo Town Hall



Plate 11: Engagement with Landowners and Fulani Settlement



Plate 12: Hon. Ngminnie Noah, the Assemblyman of Kaleo East, witnessing the Consent Sheet.



Plate 13: Meeting with Nuo-Ire family, Owners of Kulbonuo Tree Shrine at Lawra



Plate 14: CDM Stakeholder Hearing at Kaleo in Jan. 2012



Plate 15: CDM Stakeholder Hearing at Lawra in Jan. 2012



Plate 16: Pre-construction Stakeholder Public Hearing at Kaleo in Nov. 2017



Plate 17: Pre-construction Stakeholder Public Hearing at Lawra in Nov. 2017



Plate 18: Meeting with Traditional Authorities of Kaleo



Plate 19: Meeting with Traditional Authorities at Lawra



Plate 20: Meeting with the Upper West Regional Minister



Plate 21: Meeting with DCE of Nadowli Kaleo at the Kaleo Town Hall



Plate 22: Meeting with Staff of the Nadowli-Kaleo District Assembly



Plate 23: Meeting with Staff of the Lawra Municipal Assembly



Plate 24: Consultations with Stakeholders on neighbouring facilities

Stakeholder Engagement Plan

Appendix 4:
Issues & Responses at Community Stakeholder Engagement Events

Engagement Event	No.	Summaries of Main Inquiries, Proposals and Concerns presented by Stakeholders	Response
CDM Engagements in 2012 at Kaleo and Lawra	1	Is the solar power replacing hydropower in the system, and if not, can the two be combined?	The stakeholders were informed that solar power will be integrated into the national grid besides hydropower. This will cause no conflict since there is no difference between the electricity depending on the type of their generation source.
	2	What is the side effect from the PV Power Plant in Kaleo?	The stakeholders were informed that there are no negative side-effects resulting from the construction and operation of the plant.
	3	Would the PV Plant cause any negative side-effects in the grid resulting in health impacts such as cancer?	The stakeholders were informed that there is clearly a separation between the PV power plant and the transmission line. However, it is also not scientifically proven that there are negative side-effects from transmission lines in terms of health impacts. As already noted, no negative side-effects are expected from the PV power plant.
	4	Is it possible to operate heavy equipment, e.g. for lifting heavy items, with solar power electricity?	The stakeholders were informed that the operation of appliances depends on the amount of power capacity which is provided. In case the power capacity is suitable, any type of electric appliance can be operated. If for instance heavy machinery was sought to be operated by the means of a small solar system, which does not provide sufficient capacity, it will not be possible. However, the PV Plant in Kaleo provides a high capacity of about 8 MW and is furthermore fed into the grid which will enable the operation of heavy equipment.
	5	There is need to guard equipment of the solar power plant since they could be stolen.	The stakeholders were assured that security measures are foreseen for the PV Plant and the whole project site. There will be fencing and other measures such as floodlights with motion control. Moreover, a enough security staff will be required on site which will furthermore cause local employment.
	6	What are the advantages of distributing the envisaged 8 MW foreseen for the Upper West Region over three sites instead of constructing on only one site? Moreover, how was the site selection undertaken?	The stakeholders were informed that the sites were selected according to the best resource characteristics, i.e. the sites with the best solar irradiation features were chosen. Moreover, they had to possess additional qualification such as (i) soil and topography condition, (ii) accessibility by means of road infrastructure and (iv) possibility for grid-connection. The three sites were chosen according to this requirement. Moreover, it is noted that the projects require a wide area for construction. The designated site for Kaleo already covers 10.22 ha. It would have been difficult to find a suitable site to fit the whole amount of envisaged capacity
	7	Would the power generated from the PV plant would only be for the people of Kaleo? Moreover, would a reduced price be expected for the amount of electricity	The stakeholders were informed that the electricity is fed into the national grid. Since it cannot be distinguished if the electricity consumed by the customers stems from hydropower, fossil-fuelled power or solar power, it cannot be

Engagement Event	No.	Summaries of Main Inquiries, Proposals and Concerns presented by Stakeholders	Response
		generated from the plant?	distinguished that the electricity generated from the PV Power Plant in Kaleo is only consumed by the people of Kaleo. However, the people may expect a more reliable power supply. Moreover, there is additional power supply available which will contribute to the satisfaction of increasing electricity demand. Furthermore, additional electrification may be facilitated with the introduction of the PV Power Plant.
	8	Would damage to one of the modules negatively affect the remainder of the PV Plant?	The stakeholders were informed that this will not be the case. Since the plant constitutes of several independent PV modules with redundant cabling, all of the remaining equipment parts will be operating without any efficiency loss as long as they are intact.
	9	What will be the benefits from the PV power plant for people in the area which do not have a grid-connection?	There are benefits which can be expected such as the sustainable socio-economic development for the region from the project. Moreover, the PV plant provides an additional power generation capacity which responds to the growing electricity demand in the country. This facilitates furthermore the continuation of electrification endeavours from the Government. Furthermore, more areas near Kaleo are sought to be electrified via grid-connection under the currently on-going electrification program.
	10	Climate change is in fact a phenomenon and cannot be neglected. Ghana as one of the parties under the UNFCCC has introduced such a project and expressed the community's support of the project.	The comment was appreciated by the panel.
	11	One of the participants mentioned that the highest amount of greenhouse gases is caused by industrialised countries instead of developing countries such as Ghana. Moreover, developed countries have binding greenhouse gas emission reduction targets. He wondered why there was not more engagement from industrialised countries and Ghana as a developing country seeks to realise such a project.	The stakeholders and panelists agreed that there should be more engagement and commitment from the developed countries. On the other hand, a project such as the PV Power Plant provides a good opportunity to tackle climate change in an area were the people also suffer a lot from its effects. Moreover, the introduction of the project under the CDM provides a good opportunity of a co-financing source, for know-how transfer and a sustainable socio-economic development.
	12	A participant asked if additional benefits are envisaged in the framework of the PV power plant project under VRA's corporate social responsibility.	VRA informed the stakeholders that the project already provides a number of benefits to the local community and the contribution to a sustainable socio-economic development. Hence, no additional efforts are foreseen.
	13	A participant asked if tariff reductions for the electricity generated from the PV power plant may be expected.	VRA informed the stakeholders that no price reductions may be expected since the PV Plant is generating grid-connected electricity. Moreover, although the resource which is harnessed, i.e. solar irradiation is available for free, there are

Engagement Event	No.	Summaries of Main Inquiries, Proposals and Concerns presented by Stakeholders	Response
			still significant costs for the investment and operation of the plant. Hence, VRA will not be able to offer the electricity at a reduced price.
	14	Since the solar power plant is grid-connected, would there be electricity after sunset. It was inquired that the PV Plant will be oriented with a certain tilt towards the sun. However, the sun is moving during the daytime and the PV plant has a fixed mounting system. He asked about the efficiency of this set-up.	Electricity will also be available in the homes and for other customers after sunset in the usual manner. This will stem from hydropower and fossil-fuelled power. In the daytime, it will furthermore stem from solar power. The stakeholders were informed that the PV panels will have a very flat tilt angle due to the rather low latitude of the location. The plant will thus catch enough irradiation although it is not a tracked system. The efficiency under the given circumstances is thus satisfying enough. The cost and benefits from a tracked system with regard to expectable efficiency increase are not justifiable.
	15	Would there be separate metering in the homes for solar power and if it would then be available free of charge?	The stakeholders were informed that also in the future the generation source from the electricity consumed in the homes will not be distinguished, i.e. only one electricity meter will be used. Since the generation of electricity from solar power also results in certain generation costs it cannot be provided free of charge.
	16	Is it possible for the line to be connected to one's house?	VRA informed that the power is to be connected to the national grid prior o distribution to individual homes
	17	An Environmental Impact Assessment (EIA) is required under CDM project development; subsequently would negative impacts be expected to be stated in the EIA report? Furthermore, would adequate compensation be paid to the former land users of the project site?	VRA's environmental specialists responded that from the current point of view no negative impacts may be expected. Moreover, the stakeholders were informed that VRA had ensured sufficient compensation to the previous land-user.
	18	Would there be a generation from the PV Plant in case of rain?	The stakeholders were informed that significantly reduced generation may be expected during rain due to the lack of direct solar radiation. However, rain may be a complementary positive effect on the maintenance requirements of PV module cleaning.
	19	Is it possible to feed electricity from the PV plant into the grid since it generates direct current (DC) whereas the electricity transmitted and distributed in the grid is alternating current (AC)?	The stakeholders were informed that within the PV power plant DC is converted into AC by the means of a converter. Electricity is then fed into the grid without causing any failures.
	20	Concerns regarding the sustainability of the project with regard to the maintenance of the project were raised. This was in relation to the solar home system project that was not successfully implemented in the late 90's / early 2000.	VRA informed the participants that the PV Plant will be under the operation of VRA. VRA will be responsible for the maintenance and will train staff accordingly in order to assure reliable operation and maintenance of the PV Plant.

Engagement Event	No.	Summaries of Main Inquiries, Proposals and Concerns presented by Stakeholders	Response
	21	Concerns were raised regarding the reliability of the grid which will provide the electricity generated from the PV plant and would thus prefer an individual off-grid solution for each home.	The participants were informed that improvements on the grid are already on-going in order to strengthen the network for the connection of the PV plant and according reliable energy supply. Regarding the preference for solar home systems, the participants were informed that solar home systems require batteries as storage in order to supply electricity when no sun is shining, e.g. during the night. This is not the case if a PV plant is grid-connected.
	22	The project is considered as a good project and it is pleaded that the sustainability aspect is taken seriously. VRA should consider students for training and employment at the PV Plant.	VRA confirms that it is envisaged to consider staff from the region. Integration in technical know-how transfer and local employment shall be achieved by the project activity.
	23	What will be the benefit from the PV plant for citizens living further away from the project communities and are not connected to the grid?	VRA informed that the site of the PV plant was chosen according to its suitability in terms of (i) solar resource, (ii) site/soil conditions, (iii) grid connection as well as (iv) access to road infrastructure. Hence, the site was chosen in order to achieve the highest output from the resource, i.e. the solar irradiation, if all the prerequisites are fulfilled. This provides in the first place an advantage for citizens close to the PV plan due to more reliable electricity supply. Further, the implementation of PV plant in the national electricity system constitutes a system expansion from additional generation. Additional generation is required to satisfy the electricity demand. This comprises also the connection of more citizens to the grid under the currently on-going rural electrification program. The site selection has been accomplished based on already existing solar map data by the means of planning software. Hence, no additional weather station is erected for data collection.
	24	Would tariff reductions for the electricity generated from the PV power plant expected?	VRA informed the stakeholders that no price reductions may be expected since the PV Plant is generating grid-connected electricity. Moreover, although the resource which is harnessed, i.e. solar irradiation is available for free, there are still significant costs for the investment and operation of the plant. Hence, VRA will not be able to offer the electricity at a reduced price.
Pre-construction public hearing at Kaleo on November 2, 2017	1.	How will the community in the project location benefit from the project?	The stakeholders were informed that the project community will inevitably become a beneficiary of the VRA Community Development Programme (CDP) which was launched in 2012 and covers areas such as Social infrastructure Projects, Environmental Protection Activities, Industrial Attachments, Education Scheme, Health, and Support for cultural activities for all VRA's operational areas.
	2.	Will there be radiation or other health hazards associated with the project?	Stakeholders were assured that the key identified impact which can result in health issues is dust during the constructional phase of the project, however,

Engagement Event	No.	Summaries of Main Inquiries, Proposals and Concerns presented by Stakeholders	Response
			mitigation measures such as sprinkling of water will be implemented to minimize the impact. No radiation or other health hazards are envisaged during project implementation.
	3.	A copy of the Preliminary Environmental Assessment (PEA) Report should be made available to the Area council.	A copy of the PEA Report was made available to the District Chief Executive on behalf of the Nadowli Kaleo District Assembly.
	4.	Will the project provide employment opportunities for the youth?	Employment strategy adopted during the constructional phase of the Navrongo Solar Power Plant will be adopted. Under this, locals were recruited from the communities on rotation basis upon their request and during the operational phase, preference was given to community members with relevant qualifications during the recruitment of technicians for operating the Plant. Similarly, it is envisaged that similar processes could be rolled out for the local community.
	5.	What mitigation measures are in place for fumes/emissions generated from constructional equipment. Again, what happens if people contract asthma and other related ailments resulting from fumes/emissions generated from project implementation.	Different kinds of power projects such as Hydro Generation Power Plants, Thermal Power Plants, Nuclear Power Plants and Geothermal Power Plants exist. Some Power Plants are referred to as Clean Energy implying that they have very minimal impacts on the environment and this includes Solar Power Plants, thus, the project will not pose health risks to the community.
	6.	Will a resettlement demarcation or buffer zone be provided to restrict impacts of the project on community members?	A buffer zone will be created around the project site. Locals were entreated to avoid initiating bush fires and encroachment of the buffer zone.
	7.	Will local lands be protected during project operations?	The project area will be fenced; however, part of the acquired land will not be fenced to serve as a fire belt. Encroachment of the fire belt by community members should be avoided.
	8.	How will Fire Safety be managed by VRA?	As required, a fire permit will be acquired prior to project implementation. VRA usually works with the Ghana National Fire Service (GNFS) at all existing project locations. Upon commencement of physical construction, VRA will engage with the GNFS to determine the best way to effectively liaise with same.
	9.	How will VRA assist the GNFS to educate the public to prevent bush burning?	As part the requirements for the Engineering, Procurement and Construction (EPC) contractor, the GNFS will be trained on how to deal with fire resulting from such solar power projects.
	10.	Will an afforestation project be implemented as trees will be cut during the constructional phase of the project?	EPA provides permits for felling of trees. The details have been provided in the PEA Report. Based on the assessment, it is not envisaged that an afforestation programme will be required, however, if mandated by the EPA, VRA will ensure afforestation is implemented.
	11.	Will internship opportunities be provided for students/	Industrial Attachments forms part of the VRA's Community Development

Engagement Event	No.	Summaries of Main Inquiries, Proposals and Concerns presented by Stakeholders	Response
		community members?	Programme (CDP), hence, internships will be encouraged.
	12.	Will VRA acquire a permit from the District Assembly?	VRA has applied for a works permit from the District Assembly. The permitting process is ongoing. Subsequently, VRA has received invoices, however, payments are yet to be effected.
	13.	What is the status of consultations with the Physical Planning Department?	Consultations were conducted with the Physical Planning department in the year 2012, however, if more consultations are required, VRA is ready to do so.
	14.	What is the educational qualification required for working at a Solar Power Station?	Minimum of Higher National Diploma (HND) in an Engineering Field will be required for O&M activities at the Solar Power Station.
	15	How do the address any conflict that will arise from project implementation	Individuals should not take the law into their hands when aggrieved as this will cause not only project delays, but cost to VRA/Ghana. All grievances should be relayed through the Assemblyman, traditional authority, District Chief Executive who shall be responsible for mediating any grievance raised by the community members.
	16.	Since there are planned Solar Power Projects for the Upper East and Upper West regions, will there be a Solar Power project in the Northern Region of Ghana?	The Northern Region, just as the Upper East and Upper West Regions has good solar radiations for Solar Power Projects, however, the main challenges faced with Solar Power Projects is land acquisition due to disputes over land ownership. However, it's been noted that other companies are already planning to implement Solar Power Projects in the Northern Region, as evidenced by bill boards depicting that land has been acquired for such an activity close to Tamale.
Pre-construction public hearing at	1.	Will the project be implemented or unduly delayed like similar government projects?	Project implementation is on course and funding has been received, with physical construction expected to commence by close of 2018.
Lawra on November 3, 2017	2.	The Lawra Naa assured VRA that Lawra is ready for development and that there is available land for expansion when required and that there will not be any disputes over land issues. Furthermore, he commended the clan which released the land for project development and entreated all local landowners to emulate the actions of the family	VRA to consider this offer in the proposed expansion of the project.
	3.	The Lawra Naa suggested that trees should be planted along the banks of the stream adjacent the project site.	Works permit has already been issued by the District Assembly mandating VRA to preserve the water body, hence, VRA will strategize to ensure that there is vegetation around the water body.
	4.	Would there be construction of accommodation facilities for project staff?	The solar project is unlike the Akosombo Hydroelectric Dam project which required construction of staff bungalows; hence, the EPC Contractor will be allowed to decide on the accommodation requirements of workers. Again, it was further explained that, currently, most projects prefer integration of the staff

Engagement Event	No.	Summaries of Main Inquiries, Proposals and Concerns presented by Stakeholders	Response
			within the communities through renting of houses within the community as it creates more rapport between the community members and the workers, hence, this will be the most likely approach.
	5.	Would the youth be provided with opportunities for employment?	Employment strategy adopted during the constructional phase of the Navrongo Solar Power Plant will be adopted. Under this, locals were recruited from the communities on rotation basis upon their request and during the operational phase, preference was given to community members with relevant qualifications during the recruitment of technicians for operating the Plant. Similarly, it is envisaged that similar processes could be rolled out for the local community.
	6.	What will be the role of the traditional authority during project implementation?	A VRA community liaison person would be assigned to liaise with the EPC Contactor, Lawra Naa and the District Chief Executive upon commencement of the project.
	7.	Since project entry is key in the success of a project, the EPC Contractor should be advised to observe proper entry requirements.	VRA will introduce the EPC Contractor to Lawra Naa and necessary requirements prior to project commencement are to be observed. The District Chief Executive will also be made aware of when the project will commence and when the EPC Contactor will arrive on site.
	8.	Why is power to some communities in Lawra controlled at the Jirapa end? Again, VRA should explain the cause of the erratic power supply at Lawra?	 The NEDCo Area Manager briefed the participants as follows: Currently control is given over the transmission lines depending on where the power is received, hence, if power is received from the Jirapa end, it would be controlled by them. This is a safety and security issue since If any maintenance work is to be done on the transmission line, power will have to be switched off from the source. For example, if the source of power is from the Jirapa end and workers from Lawra are required to do maintenance works then anytime, work is to be done, the workers at Lawra will have to ask those at Jirapa to switch off the power and this can pose a safety risk. Generally, the individual working is required to ensure that power is switched off, locked with the key placed in his pocket before maintenance works is done. Some communities in Lawra are being controlled by power from Jirapa end whiles others in Jirapa are being controlled by Lawra due to power source issues. Again, NEDCo acknowledged receipt of a letter submitted by the District Assembly regarding the issue and indicated that they would have to identify administrative issues that must be addressed.

Engagement Event	No.	Summaries of Main Inquiries, Proposals and Concerns presented by Stakeholders	Response
	9.	What will be the role of the District assembly during project implementation and how would the district assembly directly benefit from the project?	 NEDCo however indicated that the administrative changes may not be comprehensive as there are safety implications. Again, NEDCo informed the stakeholders that anytime there is power outage without a public announcement, it implies the outage resulted from a fault and further explained that the system has a protective device that protects the lines by switching off in the event of a fault to protect the power lines and household appliances. The device protecting the transmission line to the District Assembly is in Jirapa, hence, even though a lot of maintenance works had been done on the line, there is more work to be done. Investigations are ongoing to ensure that the power outages are eliminated and assured the stakeholders of his commitment to ensuring that the power outages are eliminated. Finally, the stakeholders were entreated to assist in the elimination of bush fires in the locality during the dry season as it could result in faults in the transmission lines which will result in erratic power supply. The stakeholders were assured that whenever the community benefits from the project, the District Assembly inevitably benefits. All expected fees will be paid to the District Assembly and the District Assembly will benefit from VRA's Community Development Programme (CDP) during project implementation.
	10.	Will there be any collaboration between Ghana Health Service and VRA in the Health education for workers?	VRA has a hospital and usually utilises its clinical staff to educate projects contractors, however, due to the distance, it will be more prudent to liaise with the local health services for education on effective condom usage.
	11.	Will VRA assist in constructing clinics for the communities?	Such considerations can be made upon request, if deemed as critical, under the Community Development Programme which also addresses health issues.
	12.	What is VRA going to do to ensure that the National Grid is available so that when Power from the Solar project is supplied, there will be reliable and sustainable power?	It's in VRA's interest to ensure that the Grid is available to sell the power since VRA is a power generating company and is required to make profit.
	13.	VRA should advice the EPC contactor to avoid irresponsible sexual behavior which may result in pregnancies. Are power generation communities given priorities	Sexual promiscuity by workers is an issue which will be discussed with the EPC Contractor during project implementation. However, in project implementation there is the need to consider both impact on the environment as well as the project. It is therefore imperative that the community members, especially the ladies, comport themselves to avoid STDs. Locals are entreated to report any of such related issues to VRA via the DCE or Lawra Naa. A government policy exists on even pricing. This ensures equity in tariffs as

Engagement Event	No.	Summaries of Main Inquiries, Proposals and Concerns presented by Stakeholders	Response
		during periods of load shedding and provided with better tariffs?	different generating plants operate at different costs; additionally, it's easier supplying electricity to communities near generation sites than those further away from the site, hence, without equity in tariffs, communities further away from generation sites will be unduly charged.
	15.	Are there feasibility studies being conducted for mini hydroelectric power projects along the Volta river and if so what's the status of implementation?	At any given time, many projects are available for consideration, however, some projects will be prioritized over others. Feasibility studies for the Pwalugu Dam project is ongoing, additionally, the Juale dam project on the Oti river is also being explored, again there are other potential dam sites on the black Volta but due to the topography of the land when one dam is developed, some of the other potential dams may not be able to be developed. As land is flat, building a new dam will be expensive, in the northern Ghana however, VRA is not ignoring any future hydro potential.
	16.	The route to the local resort called "Meet Me There" is said to be within the project site, and this could be impacted upon communities' lifestyle. thus, what would be done?	Route to the local resort is outside the project area, however, alternative access will be provided if required.
	17	How do the address any conflict that will arise from project implementation	Individuals should not take the law into their hands when aggrieved as this will cause not only project delays, but cost to VRA/Ghana. All grievances should be relayed through the Assemblyman, traditional authority, District Chief Executive who shall be responsible for mediating any grievance raised by the community members.
	18	Will the project help improve the road that leads to the local resort?	Due to high cost of road construction, this may not be feasible, but some road development to the project site may be required
	19	Is the project being brought to Lawra by Hon. Kennedy Agyapong?	The project is a VRA project which is being funded by a loan agreement between the Government of Ghana and KfW Development Bank. However, the main consideration should be the impacts and benefits of the project to the community and not the initiators.
EPC Contractor introduction Meeting with Nadowli-Kaleo District Chief Executive on Aug.	1	Engagement of the local youth should be a high priority	The project team assured the District Assembly that the youth in Kaleo will be prioritized during the recruitment process based on availability of required employable skills
27, 2019	2	Contractors to avoid irresponsible sexual conduct in the project area.	The officials were assured that training would be conducted by EHS personnel continually to sensitize the workers. Additionally, it was reiterated that most

Engagement Event	No.	Summaries of Main Inquiries, Proposals and Concerns presented by Stakeholders	Response
			workers would be employed from the project area during the constructional phase and therefore new persons in the community will be highly limited.
	3	Need for the District Assembly requested to be apprised with the process to be used for recruitment of project staff.	Project team would:
	4	What will be the role of the District Assembly in project implementation	District Assembly to provide the conducive environment for the project to be successful such as ensuring security of project equipment
EPC Contractor introduction	1	Traditional leaders happy for commencement of project implementation	The comment was appreciated by the Project Team.
Meeting with the Chief of Kaleo at the traditional meeting grounds on August 27, 2019	2	Engagement of the local youth should be a high priority	The project team assured the District Assembly that the youth in Kaleo will be prioritized during the recruitment process based on availability of required employable skills
Public hearing at Kaleo Town hall on	1	Community leaders happy for commencement of project implementation	The comment was appreciated by the Project Team.
August 27, 2019	2	Community members urged to have a positive attitude towards the project to ensure effective project implementation	The comment was appreciated by the Project Team.
	3	Employees should be given fair payment during project implementation	The comment was appreciated by the Project Team.
	4	Speed limits to be enforced to avoid accidents	Issue noted and project contractor would ensure that
EPC Contractor introduction	1	Community leaders happy for commencement of project implementation	The comment was appreciated by the Project Team.
Meeting with the Lawra Naa at his palace on August 28, 2019	2	Why is the capacity of Kaleo Solar Power higher than that of Lawra?	Current capacity of 4MW is to be increased to 7MW under Phase 2 development. If the distribution network is improved, the installed capacity could be increased. The existing voltage fluctuations will be significantly improved due to the proposed 7MW Solar installation
	3	What is the percentage of project staff that would be employed from the youth in Lawra?	This would be dependent on the employable skills of the youth at Lawra. Those to be employed will be further trained and equipped as required.
	4	Would landowners be given additional package?	Landowners are entitled to annual ground rent

Engagement Event	No.	Summaries of Main Inquiries, Proposals and Concerns presented by Stakeholders	Response
EPC Contractor introduction	1	Lawra Municipality happy for commencement of project implementation	The comment was appreciated by the Project Team.
Meeting with Lawra Municipal Chief	2	Need to prioritise employment for youth in the Upper West Region	Youth in Lawra will be prioritized during the recruitment process based on availability of required employable skills
Executive at the Lawra Municipal	3	Illegally constructed road ramps would hamper transport project equipment such as transformers	Illegal road ramps would be removed prior to project commencement
Assembly on August 28, 2019	4	Need for collaboration regarding security of project equipment	Lawra is a safe community and the contractor is assured of effective collaboration to ensure optimum security during project implementation
	5	Project Team to make copies of the ESIA report	ESIA document could be accessed on the VRA website and additional copies will be provided to the Lawra Municipality
	6	Priority should be given to local artisans for employment ed during the constructional phase of the project.	Youth in Lawra will be prioritized during the recruitment process based on availability of required employable skills
	7	Would the landowner have any priority in the employment process?	Due process regarding best recruitment practices would be followed during the recruitment of staff
	8	Project Team should make a presentation on the key identified impacts and mitigation measures in the ESIA to officials of the Assembly	The project team concurred.
Meeting with Key stakeholders held Kaleo Community	1	Project Team should request for a formal application to be submitted through the Nadowli District Police Command for security to be provided for the project	Upper West Regional Minister who is the head of security in the region had been informed, however, a formal request would be done as requested.
information Centre on August 29, 2019	2	How should the Ahmadiyya hospital liaise with the project contractor during project implementation	Ahmadiyya hospital should take advantage of potential clientele from the contractor's workers and negotiate a business deal
	3	What are the direct project related side effects/impacts on the community?	General constructional impacts, e.g. noise, traffic, dust are expected however, no significant impacts are envisaged during the operational phase since it's a Solar Power project.
	4	What is the percentage employment for Kaleo youth on the project?	VRA to implement Local Content Policy which will involve employing locals for all unskilled work, however, skilled workers would be recruited from other regions if the required skills are not available within Kaleo.
	5	Will Kaleo benefit from free power due to the location of the solar power project in the communityr?	Power generated would feed into the National Grid, thus, community members would be required to pay for electricity usage as is currently being done. However existing power fluctuation within the project area would be significantly minimized due to the location of the project.
	6	Would weather changes affect solar power	Solar Power generation, just as other renewable energy projects, is dependent on

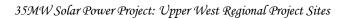
Engagement Event	No.	Summaries of Main Inquiries, Proposals and Concerns presented by Stakeholders	Response
		generation?	weather, however, the panels to be utilized would have the capacity to maximize power generation with minimal sunlight.

APPENDIX 5: DETAILS OF KEY PARTICIPANTS DURING THE STAKEHOLDER ENGAGEMENTS

No	Name	Agency	Contact Number			
Upper	Upper West Regional Coordinating Council					
1	Adams Walid	Assistant Director, RCC	0208396512			
2	Anthony Gyamera	Regional Town & Country Planning Officer	0241055002			
3	David Adibi Yakubu	Regional Coordinating Director, Upper West Region				
4	Ebenezer Tetteh	Ag. Contract Manager, Dept. of Feeder Roads, UWR	0208300266			
5	Hon. All-Issaka Saliah	Regional Minister, (immediate past)	0244675895			
6	Hon. Hafiz Bin Salih	Regional Minister, Upper West Region				
7	K. Omane-Brempong	Regional Manager, Dept. of Feeder Roads, UWR	0208170089			
8	Kwaku Manu Afful	Regional Fire Officer, Upper West Region	0200885961 / 0266210650			
9	Mr. Bako	Regional Administrator, Ghana Health Service, UWR	0243661898			
10	Mr. Tenge	Regional Health Information Officer, Ghana Health Service, Upper West Region	0208214746			
11	Musa Biauah	PRO, Regional Coordinating Council	0244594074			
12	Philip Balegha	D.D.P, Regional Coordinating Council	0244576179			
13	Sandow Tiblia	Regional Director, Ghana Meteorological Agency,	0200378908 /			
		UWR	0249230678			
Lawre	a Municipal					
1	Abudulai I	Lawra Municipal Assembly	0209061065			
2	Adam K. Saeed	DDFO	0208722118			
3	Ado E. Nyorie	GNFS	0244252665			
4	Andrew A. Kpan	Director, Ghana Education Service,	0207108302			
5	Anthony K Bondong	Former MP, Lawra	054273912			
6	Asare Benjamin	LDH (Procurement Officer)	0243952192			
7	Bambara Peter	Env. Health Officer,	0242709194			
8	Biliguo S. Enoch	Dist. Soc. Welfare Officer,	0201226814			
9	Cletus Chevme	Lawra Municipal Assembly	0549735412			
10	Clifford Atanga	Dep. Coordinating Director	0206421307			
11	Cornelius Beyou	MIS Officer, Ghana Education Service,	0207307311			
12	Damian Tampum	MOFA/ Diet. Vet. Officer	0200525702			
13	Damiian Naaern	Dept. Feeder Roads,				
14	David Y. Kwudegr	Assembly member, Yagpele, LMA	0208876135			
15	Dixon Nyannor	Social Security & National Insurance Trust	0244785263			
16	Do J. Yiere	Ghana National Fire Service	0209167786			
17	Dr. Sebastian Sandaree	Director of Health,	0243672634			
18	Ernestina Nyozie	2IC District Fire Officer	0244252665 / 0201799944			
19	Frank Karib	Dep. Director, Finance & Admin., Ghana Education Service	0208594429			
20	Fred Qngrani	GIS	0244566267			
21	Fred Zinambe	National Commission for Civic Education	0209061076			
22	Hon. Abu Sampson	District Chief Executive, (Immediate Past)				
23	Hon. Amos Gyetuo	Assembly member, Lawra Municipal Assembly	0208464071			
24	Hon. Martin Bomba-Ire.	Municipal Chief Executive				
25	Hon. Yambopone Perey	Assembly member,	054979797			
26	Isaac Dery		0206965419			
27	Jerome Tiere	District Fire Officer	0209167786			

No	Name	Agency	Contact			
			Number			
28		Assembly member, Tuusri, Lawra Municipal	0.5.40.200.10.6			
20	Justice G. Gaanu	Assembly	0549289186			
29	Kaamel Issahaku	CIC/	0208234391			
30	Kambata Comfort	NBSSI	0207636351			
31	Kojo Quanazie	BNI	0244405577			
32	M. A Majeed	Coordinating Director	0208727071			
33	Mary Assumpta	Gender Office	0208373293			
34	Naa-An Kuuyelleh	Asst. Director, Research & Statistics, GES	0208831069			
35	Nelson Yuyel	Lawra Municipal Assembly	0242810230			
36	Niber Eric	D' C 1 NEED	0206764998			
37	Rebecca Akua Sabri	Dist. Coord. – NFED	0208986347			
38	Rita A. Nyorlea	NBSSI, Lawra Municipal Assembly	0242845435			
39	Roger Nabiekye	Planning Officer	0208767237 / 0244889861			
40	Vida Dakwark	NADMO				
40	Yahaya A. Harif	NADMO	0207094817			
42	Yahaya A. Harii Yakubu Zakaria	PRO	0247718140			
42	Yussif Yakubu Yussif Yakubu	PRO	0208096074 0200764062			
	wli-Kaleo District		0200704002			
1	Adam Issac	Einamaa Dant NVDA	0244986556			
2	Bapiri Eusebius	Finance Dept. NKDA District Fire Officer, GNFS	0208914364			
		· ·				
3	Bukari Basi	District Budget Analyst, NKDA	0243687874			
4	Elise Banamwini	Assistant Director, NKDA	0543972573			
5	Esther Abachie	Planning Officer	0206767659			
6	Evaret Danaah	Ghana Education Service	0246141702			
7	Gekuas Dakurah	Manager NHIS	0244505272			
8	Hilda Alhassan	ACO	0244585273			
9	Hon. Abu Kansangabata	DCE, Nadowli District Assembly (Immediate Past)	0242387445 / 0208380428			
10	Hon. Amperah	NCCE, Nadowli-Kaleo				
11	Hon. Kate T. Lankono	District Chief Executive	0207444484			
12	Ignatius Noekor	Asst. Divisional Officer, GNFS	0207555673			
13	Kuutaah Mauricia	National Service Scheme, NKDA	0550954802			
14	Lygia Sa-Adatu Osmani	Human Resource, NKDA	0547551504			
15	Ngwenzie Janet	Supply Officer, NKDA	0208816209			
16	Patrick Daemaah	National Health Insurance Scheme	02471234			
17	Paul Y. Adame	D.D.E, Ghana Education Service	0242665785			
18	Peter Ziem	G.E.S,	020744555			
19	Raiolngs Owusu	Supply Officer, NKDA	024375339			
20	Safia Adbdulai	District Planning Officer, NKDA	0244474163			
Nadov	Nadowli-Kaleo District – Neighbouring Facilities					
1	Nayari Tarik	Ahmadiyya Hospital	0205768367			
2	Mwaabu Albert A. Hon.	Assemblyman, Kaleo West	0533983819			
3	Agyei Samson	Church of Pentecost	0247905952			
4	Moses Abu	Church of Pentecost	0240382901			
5	David Dumba	Church of Pentecost	0241689622			
6	Mwini Naa Joseph	Emmanuel Worldwide Synagogue Church	0547808125			
7	Balam Jonas	Emmanuel Worldwide Synagogue Church	0247435086			
8	Hon. Noah A. Nyaminnie	Kaleo – Assembly Man	0247697937			
9	Beatrice Meyeni	Kaleo Area Council	0241644399			
10	Dakurah Georgetta	Kaleo Area Council	0247905952			

No	Name	Agency	Contact
			Number
11	Abudu Modesta	Kaleo Community Information Center	0240436972
12	Aiyeh Rebecca	Kaleo DA/KG	0247999783
13	Sabogu Sophia	Kaleo DA/Primary	0242339405
14	Hushie K. Nicholas	Kaleo Police Station	0249361376
15	Nana Oboabeng Aberi	Kaleo Police Station	0241103797
16	Saambar Christina	Kaleo R/C	0247802227
17	Mary Sunmani	Kaleo RC/Primary	0249776061
Fores	st Services Division – Upper Wes		
1	Francis Brobbey	District Forestry Manager	0244169587
2	Isaac Kofi Gyekye	Assistant District Forestry Manager	0244836287
3	Mr. Basilide Elias Babasigna	Technical Officer, FSD, Lawra District	020 5891317
4	Mr. Alex A. Boadu	Director, Operations, FSD	024 4421333
5	Mr. Isaac Adonten	Assistant Regional Forestry Manager	020 7241718
6	Mr. Samuel Opoku	District Forestry Officer, Lawra District	024 3609450



Stakeholder Engagement Plan

Appendix 6:

Advertisers Announcement of EIA Report for 35MW SPP - UWR

ADVERTISER'S ANNOUNCEMENT

35MW Solar Power Project: Upper West Regional Project Sites

The Volta River Authority (VRA) has submitted to the Environmental Protection Agency for review, an Environmental Impact Assessment (EIA) Report for its "35MW Solar Power Project Upper West Regional Sites", in line with the EPA Act 490, 1994 and the LI 1652, 1999.

The 35MW Solar Power facility is to be developed in two (2) phases. Phase 1 and Phase 2 will involve the installation of 17MW and 18MW respectively and will utilise four (4) separate sites with a total land area of 44.92Ha at Kaleo and Lawra, in the Nadowli-Kaleo District and Lawra municipality respectively, all in the Upper West Region. Hard copies of the EIA Reports are available at the EPA Head office in Accra. The electronic copy is available on the VRA's website at www.vra.com. Also available on the VRA website is the Non-Technical Summary Report of the EIA.

Any person(s) who have an interest, concern, or special knowledge relating to potential environmental effects of the proposed undertaking may contact or submit such concerns, etc., to:

The Chief Executive AND Volta River Authority
P. O. Box MB 77, Accra
Tel No: +233-302-664941-9
Email: corpcomm@vra.com

The Executive Director Environmental Protection Agency P. O. Box M 326, Accra Tel No: +233-302-664697/8 Email: info@epa,gov.gh

Not later than July 31, 2019

Daily Graphic, Monday, June 10, 2019; Pg 71