Sustainable Development Verified Impact Standard

UPENERGY-SOCIAL AND CLIMATE IMPACT PROGRAMME- NIGERIA-1

VERIFICATION REPORT

Earthood

Document Prepared by Earthood Services Private Limited

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Client	UpEnergy Group
Project Title	UpEnergy- Social and Climate Impact Programme-Nigeria-1
Project Location	Nigeria

Summary:

Earthood Services Private Limited (hereafter referred to as ESPL) has been contracted by UpEnergy Group to conduct the SD VISta Verification of grouped project – "UpEnergy- Social and Climate Impact Programme-Nigeria-1" (VCS ID 2673) regarding the relevant requirements of SD VISta Program Guide and Standard (SD VISta Standard Version 1.0/01/ & SD VISta Program Guide Version 1.0/02/).

The proposed grouped project contributes to the achievements of SDG targets 1, 5, 7, 8, 12, 13 and 15. The project entails distribution and installation of fuel efficient improved cookstoves (ICS) for cooking purposes in the households of the host country, Nigeria thereby reducing the consumption of non-renewable biomass (charcoal used in inefficient traditional stoves. The project is a voluntary initiative as the host country laws do not mandate the distribution of improved cookstoves (ICS) to the local communities.

The review of the SD VISta PD/4/, SD VISta MR/5/ Ex Post ER sheet /6/, supporting documentation and subsequent follow-up actions i.e., onsite audit conducted by the VVB/7/, where end users were interviewed, have provided Earthood with sufficient evidence to determine the fulfilment of stated criteria. The project correctly applies the approved baseline and monitoring methodology VMR0006: Methodology for Installation of High Efficiency Firewood Cookstoves, version 1.1./8/

This is the first monitoring under both VCS and SD VISta and the monitoring period covered under this verification is from 07-May 2022 to 31-October-2022.

This assignment is an independent and objective review for determination of the monitored reductions in GHG emissions. The verification includes the implementation and operation of the project as reported in the PDD/04/ & monitoring report /05/. The verification process is undertaken by VVB that involves the following:

- The desk review of documents and evidence submitted by the project participant in context of the VCS criteria along with reference CDM rules and guidelines issued by CDM EB,
- Undertaking physical site visit, interview, or interactions with the representative of the project participant,
- Reporting audit findings with respect to clarification and non-conformities and the closure of the findings as appropriate.
- Preparing a draft verification report of SD VISta program complying with the SD VISta requirements

A risk-based approach has been followed to perform this verification. During verification 02 Corrective Action request (CARs), 01 Forward Action request (FARs) and 02 Clarification request (CLs) were raised and successfully closed.

The SD VISta MR/5/, emissions reduction calculations/6/, and accompanying documents provided are all in compliance with SD VISta criteria/1,2/. The verification was completed with a reasonable level of assurance and no uncertainties were found related with the project activity verification.

In Summary, it is Earthood's opinion that the project activity "UpEnergy - Social and Climate Impact Programme- Nigeria-1" as described in the Monitoring Report v1.3/5/ complies with the applied methodology VMR0006 v1.1./8/ The monitoring plan adequately provides for the ex-post monitoring of the project's SDG Goals. The monitoring arrangements described in the monitoring plan are feasible within the project design and it is Earthood's opinion that the PP shall be able to implement the monitoring plan and adhere to the requirements of the SD VISta standard and Programme Guide/1/2/

Earthood confirms that the project is implemented in accordance with the registered SD VISta PD and the applied baseline and monitoring methodology. The project implementation is in line with the information provided in the final Monitoring Report/5/. The monitoring procedures are in line with the monitoring methodology and the SDG Goals achieved during the current monitoring period are calculated without material misstatements. VVB's verification approach is based on the understanding of the risks associated with reporting of SDG parameters and the controls in place to mitigate these. Earthood planned and performed the verification by obtaining evidence and other information and explanations that Earthood considered necessary to give reasonable assurance that reported SDG Targets are fairly stated. Based on the information evaluated we confirm the grouped project will contribute to a total of 7 SDGs which are SDG target 1, 5, 7, 8, 12, 13 and 15. ESPL issues a positive verification opinion, certifying that the project meets the applicable SD VISta standards and thereby proposing that it be registered.

CONTENTS

1 VERIFICATION PROCESS

1.1 Objective

UpEnergy Group (PP) has contracted Earthood Services Private Limited (VVB) to jointly carry out the verification of the grouped project activity "UpEnergy - Social and Climate Impact Programme-Nigeria-1" (VCS ID:2673) located in Nigeria in line with the relevant requirements of SD VISta Program Guide (v1.0, dated 22 January 2019)/02/, SD VISta Standard (v1.0, dated 22 January 2019)/01/ and Program Definitions (v1.0, dated 22 January 2019)/2.2/.
The purpose of this verification is to have an independent third-party assessment of proposed project activity to review the monitoring results and verify that monitoring methodology was implemented according to the registered monitoring plan and monitoring data, used to confirm the reductions in anthropogenic emissions by sources is sufficient, definitive, and presented in a concise and transparent manner and determine its compliance with the criteria set out in the SD VISta Standard and Program Guide to attain real, measurable, additional, and permanent SD VISta claims. . To establish that the grouped project activity has been implemented in line with registered design and conservative assumptions, as documented, the monitoring plan, monitoring report, and the project's compliance with applicable SD VISta, and host party requirements are specifically verified.

The verification statement opinion is a written assurance that:

- The project complies with all the applicable SD VISta requirements and can claim for SDGs over the project's monitoring period.
- The verification followed the requirements of the current version of the SD VISta Program Guide (v1.0, dated 22 January 2019)/02/ and SD VISta Standard (v1.0, dated 22 January 2019)/01/ to ensure the quality and consistency of the validation work and the report.
- The project addresses SDG target 1, 5, 7, 8, 12, 13 and 15 by distributing 1,566 (ICS) and ensuring emission reduction of 1,459 tCO_2.
- The data reported is accurate, complete, consistent, transparent, and free of material error or omission.

1.2 Scope and Criteria

The scope of the verification is the review of the sustainable development impacts generated by the project, their contribution to the UN Sustainable Development Goals (SDG) and the benefits for people and prosperity and the benefits for the planet that they imply. With this aim, the audit assessed the project implementation, operation and monitoring system and procedure.

The scope of this verification is to assess the claims and assumptions made in the SD VISta monitoring report/05/ against the SD VISta criteria, including but not limited to, SD VISta standard V1.0 /01/ applied methodology/08/ and other relevant rules and requirements established for SD VISta project activities.

ESPL has employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generation of emission reductions.

The verification is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project implementation.

The verification is carried out based on of the following requirements, applicable for this SD VISta grouped project:

- SD VISta Program Guide (v1.0, dated 22/01/2019) /02/
- SD VISta Standard (v1.0, dated 22/01/2019) /01/
- SD VISta Program Definitions (v1.0, dated 22/01/2019) /2.2/
- Other relevant rules, including that grouped project activity is in accordance with rules and legislation of the host country (Nigeria).

The verification process is undertaken to establish the following:

- To verify the project implementation and operation with respect to the registered SD VISta PD.
- To verify the implemented monitoring plan with the registered SD VISta PD and applied baseline and monitoring methodology.
- To verify that the actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the registered monitoring plan.
- To evaluate the GHG emission reduction data and SDG Targets achieved and express a conclusion with a reasonable level of assurance about whether the reported data is free from material misstatement.
- To verify that reported SDG Targets achieved are sufficiently supported by evidence.

The verification shall ensure that the reported SDG target achievements are complete and accurate to be certified.

1.3 Level of Assurance

☒ Reasonable Level of Assurance

☐ Limited Level of Assurance

The threshold for quantitative materiality with respect to the aggregate of errors, omissions and misrepresentations, individually or in the aggregate, for the reported SD VISta claim was limited to five percent, as required by section 5.2.3 of the SD VISta Standard /01/.

The approach used by ESPL for verification of the crediting period is built on a thorough understanding of the risks associated with reporting data on addressing SDG targets. ESPL conducted the verification by reviewing substantiating evidence and other relevant information and explanations from sources to provide reasonable assurance that targeted SDGs are fairly reported.

In the draft verification report (prepared by assessment team), the information provided is reviewed by an independent technical review team (one or more members) to confirm if the internal procedures established and implemented by ESPL were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable SD VISta requirements as appropriate. The technical review team is collectively required to possess technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of the technical review team are independent of the verification team. The report approved by the Technical Manager is endorsed by the Managing Director, who is overall responsible for ensuring quality, before final release. Further details of applicable procedures and responsibilities concerning the ESPL Quality Management System (QMS) are available on its website (www.earthood.in).

1.4 Summary Description of the Project

Summary description of grouped project activity has been illustrated in section 2.1.1 of SD VISta MR appropriately. As per the given details in MR, information was assessed on-site and found to be consistent. The project activity “UpEnergy - Social and Climate Impact Programme- Nigeria-1” undertakes dissemination of fuel efficient improved cookstoves (ICS) to households in Nigeria at a subsidized price. The grouped project activity is a voluntary initiative as host country laws do not mandate the distribution of ICS to the households. This ICS technology is designed to reduce GHG emission by improving the thermal efficiency of the cookstove thereby reducing the fuel consumed by households for domestic purposes and alongside promoting public health to tackle several health challenges such as indoor air pollution caused due to using less efficient stoves.

The baseline and project scenarios are well described and consistent with the data that was verified during the VVB onsite audit. The average annual and total GHG emission reduction from the group project activity is expected to be 1,633,731 and 11,436,117 tCO_2e, respectively, over the first 7-year renewable crediting period.

Along with reducing emissions, the project also aims at a holistic development of the community and planet. It does so by contributing to UN SDG Goals 1, 8, 5, 7,12, 13, and 15 which include in their purview increased savings, job creation, women empowerment, access to clean energy, reduced consumption of non-renewable biomass and decreased rates of deforestation in Nigeria.

The project caters to the following SD VISta sectoral scopes:

- Sectoral Scope 1 – Agriculture Forestry and Other Land Use
- Sectoral Scope 2 - Climate Change Adaptation
- Sectoral Scope 4 – Energy
- Sectoral Scope 10 – Livelihoods
- Sectoral Scope 14 – Women's Empowerment

1.5 Audit Team Composition

The Audit Team has been designed with much care to fulfil the set competency criteria. The team collectively has knowledge of the rules and requirements of the registry (VCS-SD VISta), sectoral scopes relevant to the project (03- Energy Demand), domain knowledge (SDGs etc.) and of the social and cultural expertise require for the project location (Nigeria).

ESPL confirms that the audit team has no conflict of interest and furthermore is fully independent from all other aspects of the project.

The Verification team consists of the following personnel:

ROLE	LAST NAME	FIRST NAME	COUNTRY
Team Leader	Chaudhary	Anjali	India
Trainee Validator	Sengupta	Akanksha	India
T.A Expert (3.1) New	Chaudhary	Anjali	India
T.A Expert (3.1) Old	Guleria	Shifali	India
Local Expert	Luka	Kumden Nanbal	Nigeria
Technical Reviewer T.A Expert to T.A(3.1)	Mahala	Deepika	India

The UN SD Experts who were involved in the project are listed below

ROLE	LAST NAME	FIRST NAME	UN SDG

External Expert SD VISta Scope 1- AFOLU	Srivastava	Parul	UN SDG 12 UN SDG 15
External Expert SD VISta Scope 2- Climate Change Adaptation	Phukan	Sukanya	UN SDG 13
External Expert SD VISta Scope 4- Energy	Singh	Ranjan	UN SDG 7
External Expert SD VISta Scope 10- Livelihoods	Kaushik	Sumit	UN SDG 1 UN SDG 8
External Expert SD VISta Scope 14- Women Empowerment	Mahala	Deepika	UN SDG 5

The Competency Statement of each team member, explicated, can be found in Appendix I.

1.6 Method and Criteria

The verification process is conducted as per internal ESPL Quality Manual and in accordance with SD VISTA requirements laid down by VCS, in particular, SDG Impacts, project's implementation, monitoring plan and the project's compliance with relevant SD VISta and host party criteria.

The following steps were undertaken:

- contract with PP/09/ for the scope, conflict of interest review and appointment of the verification team and technical review team.
- completeness check of SD Vista-MR/05/
- desk review of SD VISTA-MR/05/ and SDG Calculation sheet /10/
- on-site visit and inspection by team/07/
- follow up interviews with PP and Project Owner/11/
- reporting and closure of findings (CARs/CLs/FARs) and preparation of draft report
- independent technical review of the draft report and final/revised documentation (e.g., SD VISta-MR, corresponding estimated ER calculations sheet and evidence)
- issuance of the final SD Vista verification report to the contracted PP.

The complete analysis of data and information provided in the MR and procedures undertaken to cross check these with other sources has been expounded in section 1.7 of this report.

It is to be noted that Earthood keeps all documents and records in a secure and retrievable manner for at least two years after the end of the project crediting period.

- **Sampling plan for verification of the project:**

The CDM Standard –Sampling and surveys for CDM project activities and programme of activities (Version 9.0)/12/ states under paragraph 28 that "When the project participants or the coordinating/managing entity have applied a sampling approach, the VVB may apply acceptance sampling as described in the steps indicated in paragraphs 29–38 below as part of validation/verification activities".

Since the PP has monitored parameters (Ny,i.j, ηnew,y,i, and μy)through sampling based surveys, verification team conducted acceptance sampling in line with paragraph 30 and 31 of the sampling standard version 9.0.

The verification team selected a random sample from PP's monitoring survey records to check the acceptability (or otherwise) of the data for each such record with PP's sample records and determined if the PP's sample records meet the requirements.

Sample Size: AQL	UQL	Producer Risk	Consumer Risk	Sample Size; Min	Acceptance No.
0.5%	20%	10%	10%	11	0

The verification team covered a total of 11 samples to confirm monitoring survey results. All the households interviewed were found to have operation project stove and confirmed reduction in fuel consumption as compared to the baseline stove. Therefore, no discrepancies were observed by the verification team.

The list of end-users interviewed by the assessment, the stakeholder responses, socio economic indicators analysed, and conclusions drawn from on ground evaluation are discussed in detail in section 1.8 and 1.9 of this report.

The verification team confirms that sufficient evidence was presented for the SD VISTa claims and that there is a clear audit trail that contains the evidence and records that validate the stated contributions to the project activity, the SDG Goal, targets and chosen indicators.

1.7 Document Review

According to the SD VISta standard requirements/01/, the SD VISta Monitoring Report/05/, and supporting documents related to the project monitoring and operation were reviewed. The

assessment team cross checked information provided in the VCS PD and MR/04,05/ from the current monitoring period along with information from sources with the team's sectoral or local expertise and, if necessary

The desk review included:

- Evaluation of the data and information given to ensure that it is complete and consistent with the SD VISta standards/01/.
- A review of the project description/04/ and implementation/05/, with special emphasis to the U.N. Sustainable Development Goals.
- Review of the monitoring plan, stakeholder identification and engagement in the project.

The verification team cross checked the information, statements, and claims in the MR through various evidence provided by PP or from other sources. A complete list of documents/ evidence reviewed is included as Appendix III.

Earthood conducted a desk review as under.

a. A review of the data and information presented to verify their completeness.
b. A review of the monitoring plan, the monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, paying particular attention to the frequency of measurements, the quality of project technology including efficiency of the project stove, and the quality assurance and quality control procedures
c. An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions

1.8 Interviews

In accordance with SD VISta Program Guide (v1.0, dated 22 January 2019)/02/, para 3.5.6 "Assessments shall include a visit to the project site. The purpose of the site visit is to confirm the validity of the project description or monitoring report and to ensure that a project meets the rules and criteria of the SD VISta Program.", the VVB conducted an onsite audit from 20/05/2023 to 22/05/2023. The verification team conducted physical interviews with the end users, PP representatives and implementation partners as a part of validating the project description and verify the information included in the project documentation and to gain additional information regarding the compliance of the project with the SD VISta requirements. In addition to physical interviews, telephonic interviews were also held on20/05/2023.The following points were discussed as the part of the interviews:

- Project Design and implementation status
- Monitoring system,

- Roles and responsibility
- Procedure for monitoring data collection
- Robustness and accuracy of data collection and transfer
- QA/QC procedures & training conducted.
- Criteria and compliance of new instances added during MP.
- Ongoing grievance mechanism

The site audit and interviews by the assessment team were conducted from 20/05/2023 to 22/05/2023.

The list of PP representatives interviewed by the VVB team is as follows.

S.No	Name	Role	Affiliation	Date	Subject	Assessment team members
1.	Murugesh Sudalairaja	Project Officer - Carbon Technical	UpEnergy Group (India)	20/05/2023	Project design Project Implementation status Project start date and Project Location Choice of applied methodology Baseline Identification and Additionality of project Investment analysis Grouped project	Anjali Chaudhary, Shifali Guleria Kumden Nanbal Luka
2.	Kumarswamy CK	Senior Program OfficerCarbon				
3.	Toyin Oshaniwa	Regional Carbon Operations Manager	UpEnergy Group (Nigeria)			
4.	Tosin Olorunmaiye	Carbon Officer				
5.	Matilda Owohtu	Nigeria Operation Manager	Climate Catalyst Ltd			
6.	Shehu Abdul-Hafiz	Finance Manager				
7.	Ngozika Vivien Ikenna	Accountant				

8.	Ahmed Yero	Data Officer			eligibility criteria. Monitoring and reporting procedure Quality Assurance Management and operating systems local stakeholder consultation process Compliance with relevant laws	
9.	Benevolence Buoye	Data Associate				
10.	Chidiadi Arigbonu	Data Associate				
11.	Muhammed T. Abdulwahab	Warehouse Manager				
12.	Bimbola Agboola	Community Engagement Officer				

The list of LSC participants remotely interviewed over telephonic calls by the VVB are as follows:

Name	Affiliation	Date	Subject	Assessment team members
Elder Zaccheaus Kadiri	Stakeholder (Community Leader-Karu Community)	20/05/2023	Participation in the LSC Feedback about the project Ongoing Grievance Mechanism	Anjali Chaudhary, Shifali Guleria and Kumden Nanbal Luka
Stella Oneli U.	Stakeholder (Government Stakeholder-National Orientation Agency)			
Olanike Olugboji	Stakeholder (MD Local NGO-WISE)			

The list of households physically inspected and interviewed by the assessment team to verify the implementation during the onsite is as follows:

S. No	Name	Stove UID	Affiliation	Date	Subject	Assessment team members
1.	Mr.Yakubu	VSP02940	Monitoring survey	21/05/2023 to 22/05/2023	VVB field survey -ICS installation details -ICS usage patterns -fuel consumption and procurement patterns -Reduction in time spent on cooking -Reduction in fuel consumption -Grievance mechanism -Training on ICS usage -WBT stove replacement	Anjali Chaudhary, Kumden Nanbal Luka
2.	SK. Photographer	VSP04406				
3.	Mrs favour Jonah	VSP03925				
4.	Dorcas innocent	VSP11110				
5.	Jummai Bawa	VSP06137				
6.	Mrs Patience Mailili	VSP04790				
7.	Mrs Ekundayo Felicia	VSP00113				
8.	Florence Michael	VSP00668				
9.	Iormumba nguyawen	VSP04834				
10.	Agbenusi Chinyere	VSP00260				
11.	Beatrice Eje	VSP02639				

The verification team covered a total of 11 samples to confirm monitoring survey results. Only charcoal stoves have been distributed during the current monitoring period therefore the VVB sample consist of only charcoal stoves. All the households interviewed were found to have

operation project stove and confirmed reduction in fuel consumption as compared to the baseline stove. Therefore, no discrepancies were observed by the verification team.

It is to be noted that VVB employed telephonic interview with the LSC participants owing to their unavailability during the scheduled dates of the on-site audit. The stakeholders included the community leader, Government Representative and NGO representatives, whose input was considered crucial for comprehensive assessment of the PA. Given that the authenticity of the Local Stakeholder Consultation is assessed via the participants' verbal testimony, recorded telephonic interview was deemed appropriate as an alternate means of verification to receive inputs from stakeholders which otherwise wouldn't be possible, hence otherwise affecting the quality of assessment.

During the interviews, both physical and telephonic, it was observed that the respondents hold a positive opinion of the project activity and the end users confirmed the benefits associated with the same.

1.9 Site Inspections

The VVB carried out an on-site audit from 20/05/2023 to 22/05/2023 and physically inspected the project technical design and implementation as specified in the SD VISta MR /05/.

The on-site assessment was carried out with the objective to:

- An assessment of the implementation and operation of the registered project activity as per registered SD VISta MR/05/.
- A review of information flows for generation, aggregation, and reporting of the monitoring parameters.
- Interview with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the registered monitoring plan in the PD/04/.
- A cross check between information provided in the monitoring report/05/ and data from other sources such as monitoring survey forms, monitoring survey results spreadsheets, technical specifications, or similar data sources.
- A review of calculation and assumptions made in determining the SDG target data.
- Relevant QA/QC procedure were checked to prevent, identify, and correct, any error in the reported monitoring parameters.

For cross-checking of the monitoring survey results, in line with standard for 'Sampling and Surveys for CDM Project Activities and Programmes of Activities' v09.0/12/, the assessment team has visited 11 beneficiaries in Nigeria. The interviews with the project beneficiaries have been conducted with help of

Local expert to overcome the language barrier. The information of the end users interviewed, and the topics covered during the onsite audit are given in the table below.

S. No	Name	Affiliation	Date	Subject	Assessment team members
12.	Mr.Yakubu	Monitoring survey sample	21/05/2023 to 22/05/2023	VVB field survey -ICS installation details -ICS usage patterns -fuel consumption and procurement patterns -Reduction in time spent on cooking -Reduction in fuel consumption -Grievance mechanism -Training on ICS usage -WBT stove replacement	Anjali Chaudhary, Kumden Nanbal Luka
13.	SK. Photographer				
14.	Mrs favour Jonah				
15.	Dorcas innocent				
16.	Jummai Bawa				
17.	Mrs Patience Mailili				
18.	Mrs Ekundayo Felicia				
19.	Florence Michael				
20.	Iormumba nguyawen				
21.	Agbenusi Chinyere				
22.	Beatrice Eje				

1.10 Public Comments

This project was open for public comment from 29/03/2023 to 28/04/2023. No comments were received by the project during the public comment period as confirmed from the project registry webpage /13/

1.11 Resolution of Findings

This section summarizes the results of the project's verification process. The results of the document review, site visit evaluations, and interviews are presented in this section. CARs, CLs, and FARs are used to correct material inconsistencies discovered during verification.

Corrective Action Request (CAR)

Participants in the project have committed mistakes that will affect the project's capacity to deliver meaningful, measurable further emission reductions.

i. Specific methodological standards that are applicable have not been met, or

ii. There's a chance that emission reductions won't be able to be measured or tracked.

Clarification Request (CL)

It's used when more information is needed to properly understand an issue or when the data isn't clear enough to determine whether a condition has been satisfied.

Forward Action Request (FR)

i. For the next verification period, the actual project monitoring and reporting processes demand attention and/or correction, or

ii. It is recommended that the MP be adjusted.

CARs and CLs will be resolved or closed if the PP changes the project description, corrects the PD, or provides sufficient further explanations or proof to address the concerns. If this is not done, the project activity will not be recommended for VCS registry registration.

In summary, the type and total number of findings that were raised are indicated below.

Type of Finding	CAR	CL	FAR
Total Findings	03	02	01

All the findings raised during this verification of the project are included under Appendix IV of this report.

1.12 Forward Action Requests

One Forward Action Requests (FARs) was raised during this assessment, instructing the VVBs undertaking subsequent verifications of the PA, that they must ensure that the geodetic information of the sites where distribution takes place in the following Monitoring Periods (MPs), over the project lifetime, are clearly stated in the corresponding ER sheet and the districts where project ICS is distributed are duly captured in the corresponding monitoring reports.

2 VALIDATION FINDINGS

2.1 Project Description Deviations

The project did not apply any project description deviations during the current monitoring period.

2.2 Grouped Projects

The project is a grouped project activity. It is about distribution of energy efficient stoves for household cooking purpose in Nigeria. Eligibility criteria for all new Group project activity instances to be added during the crediting period is specified in Section G1.1 of the Sustainable Development Verified Impact Standard/01/.

Section 2.4 of the MR /05/, establishes the necessary eligibility criteria to ensure that inclusion of all new project activity instances is in accordance with the requirements detailed in the SD VISta Standard /01/

Project is undergoing first verification and, no new project activity instances have been added to the project in this verification period.

Since no new project activity instances have been added, the sampling method undertaken, conformance with eligibility criteria, start date of project, conformance with central monitoring and management system and Quality and completeness of evidence, data and documentation remain same as during validation. /04/

3 VERIFICATION FINDINGS

3.1 Summary of SDG Contributions

The grouped project" UpEnergy-Social and Climate Impact Programme- Nigeria-1" is aiming to reduce GHG emission by replacing traditional cookstoves with highly thermal efficient Improved Cookstoves. The proposed project will contribute to 07 SDGs as U.N. sustainable Development Goals 1, 5, 7, 8, 12, 13 and 15.

The following table summarizes the project's direct contribution to the SDG through the implementation of the project activities.

S No.	SDG Target	SDG Indicator	Estimated Project Contribution by the End of Project Lifetime	Assessment opinion
1.	1.1	Average savings realized due to decrease in expenditure on basic service such as cooking	The distribution of energy efficient stoves helps save 0.23 $ per day per HH.	The value of parameter By,saving,i,j is found to be in accordance VCS PD-MR and VCS ER Sheet. Since it's an annual parameter it has been divided by 365 to give value on per day basis. Conversion factor of 6 has been employed since project stoves uses charcoal and not firewood. The cost of charcoal has been calculated to be in accordance with market rate/52/ and consumption pattern/48/. The same has been assessed by VVB team on site visit/7/ and from relevant literature/52/48/.
2.	*1.4*	Number of households having access to improved cooking technology due to project activity	The distribution of 1,566 energy efficient stoves under the project helps in providing basic service access to household. .	The verification team reviewed the project and found that 1648 energy efficient ICS were distributed by the PP to end users. /20/. It was found that 95% of the stoves were operational as assessed from

				the monitoring survey results /16/ carried by the PP for the first monitoring period. This amounts to 1,566 operational ICS. Apart from desk review, the VVB team further assessed the stove distribution and operationality during the on-site visit. /7/11/
3	5.1	% of female employees	This project activity promotes employment to women, thus helps eradicating gender-based discrimination and provides socio-economic parity. 28% employees are female.	VVB verifies women representation in workforce via Employment records maintained by HR, /33/ and on-site observations and interview/7/11/. Female workforce was interviewed during OSV/11/ and they responded in the positive when asked work conditions and equal treatment of employees.
4	5.4	Average time saving associated with cooking time.	In the poorest communities, the burden of collecting and/or purchasing fuel often falls on women and children. By reducing cooking time, the program provides women in project households with more time to invest in other productive economic development activities. Approximately 0.82 Hour/day/HH cooking time can be saved from the project activity	The result is verified from the baseline survey/16/ monitoring survey/17/. The difference of the weighted average cooking time in both scenarios results in 0.82 hours of saving per day, per household. The same was further verified during physical interviews with end user/11/, during site visit. /7/
5	5.5	Proportion of women serving in managerial/ leadership /ownership role	This project activity encourages participation of women in leadership / managerial role. 60% leadership is female.	This has been verified from the employment records /33/ where three out of five managerial positions are held

				by females. The assessment team further verified the same during on site visit/7/ where female leadership present in Lagos, were interviewed/11/
6	*7.1*	Number of households having access to improved cooking technology due to project activity	The project activity involves promotion and distribution ofimproved cooking stoves (Operational) in 1,566 households of Nigeria.	The verification team reviewed the project and found that 1648 energy efficient ICS were distributed by the PP to end users. /20/. It was found that 95% of the stoves were operational as checked from the monitoring survey results /17/ carried by the PP for the first monitoring period. This amounts to 1,566 operational ICS.
7	8.b	Number of Trainings conducted in a year	The project activity provides training and skill development programs for the youth population, thus increasing their employability. 3 training courses were conducted in monitoring period.	This is verified via assessment of training manual/28, / training attendance and schedule. /29/. As per the records and interview with employees and ground staff/11/, 3 training courses were conducted in the monitoring period. PP conducted trainings as part of youth and women program in its region of implementation. The records mention age and gender of all trainees, thus substantiating the project activity's impact on youth and female. /33/
8.	8.5	Number of jobs created	The project activity generates employment for marketing / sales and distribution / technical employees. 69 employees	This is validated through the employee records maintained by PP's HR department. /33/. Interview with employees, local population, leader of local

			were recruited in monitoring period.	tribe and grassroot NGOs, who all responded in the positive when asked about local employment opportunity created by PA./11/
9	13.0	Tonnes of greenhouse gas emissions avoided	1459 tCO_2e of greenhouse gas emissions will be avoided over monitoring period	During assessment it is confirmed by verification team that the value 1459 tCO_2e is correctly estimated which is assessed from the VCS Ex-post ER sheet/06/, SD VISta Impact Calculation – MP1 /10/ and VCS PD-MR/4, 5/. The same has been further confirmed from the Draft VCS Joint Validation and Verification Report/43/
10	12.2	Decrease in specific fuel consumption.	Reduce the consumption of non-renewable biomass in participant households by 2.75 tonnes of eq. firewood/annum/HH	It is validated from WBT tests/45/ that Baseline stove has efficiency of 16.5% and from manufacturer's specification/49/ that ICS has efficiency of 37.9%., which results in reduced fuel consumption.
11	15.1	Amount of Non-renewable biomass saved.	The Project will reduce 792 tonnes of Non-renewable biomass over the monitoring period in participant households and will contribute towards reducing deforestation	The value of parameter By,saving,I,j is found to be in accordance VCS Joint Validation and Verification report. Since it's an annual parameter it has been divided by 365 to give value on a per day basis. The conversion factor of 6 has been employed since project stoves uses charcoal and not firewood. The total number of stoves installed under the current monitoring period is

				1,648/20/. It was found that 95% of the stoves were operational as checked from the monitoring survey results /17/ carried by the PP for the first monitoring period. The operational stoves during the are calculated as 288 units on adjusting for the equivalent operational year fraction to account only for the duration of the current Monitoring period. The value is in concurrence with Draft VCS Joint Validation and Verification Report. /43/ Thus By,savings is multiplied with 288 to give SDG value of 792

It is to be noted that all indicators utilized are specific to the project activity, Further, w.r.t the impact for SDG target 1.4 and 7.1, while the same monitoring indicator has been used, the resulting impact is two fold resulting in positive impact for both SDGs.

3.2 Project Design

3.2.1 Project Objectives

The project "UpEnergy-Social and Climate Impact Programme- Nigeria-1" is aiming to reduce GHG emission by replacing traditional cookstoves with highly thermal efficient cookstove. The Cookstove project has contributed to 07 SDGs out of total 17 Sustainable Development Goals (SDG). The project activity is classified as U.N. sustainable Development Goals 1, 5, 7, 8, 12, 13 and 15.

The Project has clearly stated its objectives in Section 2.1.1 of the SD VISta MR/5/.

The project activity will provide more job opportunities (**SDG 8.5**), 69 people got employment with which is verified from the list of employees and Employment contracts submitted by the PP /33/. The project activity also provides skill development and training, making the local population more 'employable' (**SDG 8.b**) The same has been verified by assessment team by assessing training material/28/ and training records and schedule/29/.

The project will also improve food security and nutritional status. Time to prepare food will decrease by using ICS because the ICS are 37.9% more efficient as compared to traditional cookstoves used by end users earlier, it has been confirmed from manufacturer's and technical

specification /49/. This allows women, who are primarily involved with cook time to invest in other pursuits. Girls will also have more time to invest in their education (SDG 5.4) The PA has also created jobs for women /33/, thus encouraging women participation in managerial and leadership roles. (SDG 5.5)

Distribution of ICS ensures that the population has access to means of clean energy. (SDG 7) (SDG 1.4). Moreover, the improved efficiency of biomass fuel rate results in lesser consumption of fuel, leading in reduced household expenditure on fuel wood and poverty (SDG1.1), reduced GHG emissions emitted into the atmosphere (SDG 13) , reduce amount of fuel biomass utilized (SDG12) and also reduced clearing of forest area for access to fuelwood.(SDG 15) In the current MP, 1,566 house holds have been provided access to clean energy/20/, and each of them has experienced savings worth 0.23$/day /10/. 2.75 tonnes of eq. firewood/annum/HH and 792 tonnes of nonrenewable biomass has been avoided over the monitoring period/6/10/.

Reduced inequality in the area of PA is confirmed through equal work opportunity policies, and non-discrimination policies. /24/25/26/

3.2.2 Project Activities

In the SD VISta MR section 2.1.2 Description of the project activity explained the project activity in detail. During assessment following points are concluded by the verification team which are mentioned below:

The project activity is a grouped project. The ICS will continue to use non-renewable biomass for cooking, but the ICS will use less wood fuel to meet thermal needs because it has higher thermal efficiency, which will result in a reduction of GHG emissions compared to the baseline scenario. It is replacing conventional cooking solutions with fuel-efficient improved cookstoves, which falls under the category of efficiency improvements in thermal applications.

The Smart Home Pro is a domestic stove with thermal efficiency of 37.90%. It has dimensions ø 28 * 26 H cms, and weighs 12kgs, with a flat bottom pot type. It utilizes charcoal and has a life span of 7 years. This verified from the UpEnergy group technical specification sheet- Smart Home Pro/49/. It is estimated tin Nigeria in that 500,000 ICS will be distributed in Nigeria during the project lifetime/43/.

The primary thrust of the project is distribution and installation of ICS. For the same, field staff have been provided with education and training so they may implement, monitor, and evaluate the project.

The project also provides training to locals to recruit them as staff, thus providing employment, and to also develop their employable skill which will allow them to find work, post culmination of project activity. The Project activity also results in uplifting women, by providing them employment opportunity and leadership roles. Additionally, women and girls being primarily responsible for collection of fuel and cooking, now can save time which can be used in other pursuits. The

reduction in burn risk, indoor air pollution and long hours also ensures they have healthier lifestyles.

3.2.3 Implementation Schedule

Implementation schedule is discussed in section 2.1.3 of MR. The first important date is May 2022 which is when UpEnergy as an organization has started distributing ICS in the project area. The start date of the grouped project activity, as identified by the PP is 07/05/2022, which is also the date of installation of first ICS under the Grouped project activity. This has been verified through the end user signed receipt of sale of first stove unit (UID:VSP00045) /14/

The stakeholder meeting was held on 23/06/2022. The start date is assessed from the stakeholder consultation reports and records/15/.

The baseline survey was conducted by PP from October 2021 to January 2022 which is verified from the baseline survey /16/. The monitoring survey was conducted from 11/12/2022 to 19/12/2022, as has been verified from Monitoring Survey Database for MP1. /17/

In August 2022, the project applied for registration under VCS and SD VISta labelling which is verified from the project webpage on verra website - https://registry.verra.org/app/projectDetail/VCS/2673./13/

3.2.4 Project Proponent and Other Entities Involved in the Project

UpEnergy Group is the project proponent. An end user agreement/18/ has been signed by each participating household confirming the ownership rights of the carbon credits generated from this project belong solely to the project proponent. ESPL has checked the End User Agreement/18/ and verified the same. Climate Catalyst, Nigeria Ltd. is the Project Representative. It is a subsidiary of the UpEnergy Group. VVB has assessed the Share Certificates which establish this relationship between the two entities. /19/.

3.2.5 Project Location

The location of this project activity is the geographical boundary of Nigeria with the geographical coordinates 9°4'55.2 latitude and 8°40.517 longitude. It has been verified using the Google Earth software/21/. The geographical coordinates of the PAI were also confirmed through the Get-geocoordinates mobile application during the VVB on-site audit. The information made available by the PP, the distribution database consisting of stove location within Nigeria/20/and the geo-coordinates obtained by VVB/07/ have been verified during the site visit and found to be consistently defining the project location as the geographical boundaries of the host country, Nigeria. Therefore, this was found to be acceptable by the VVB.

Under the concerned MP. ICS has been distributed in the following 16 districts of Nigeria:

Sr. No	Districts	Latitude	Longitude
1.	Akwa Ibom	4.90573710	7.85366750

2.	Benue	7.33690240	8.74036870
3.	Ebonyi	6.26492320	8.01373020
4.	Edo	6.63418310	5.93040560
5.	Federal Capital Territory	8.89406910	7.18604020
6.	Jigawa	12.22801200	9.56158670
7.	Kaduna	10.37640060	7.70945370
8.	Kano	11.74706980	8.52471070
9.	Kebbi	11.49420030	4.23333550
10.	Kogi	7.73373250	6.69058360
11.	Lagos	6.52437930	3.37920570
12.	Nasarawa	8.49979080	8.19969370
13.	Niger	9.93092240	5.59832100
14.	Ondo	6.91486820	5.14781440
15.	Osun	7.56289640	4.51995930
16.	Plateau	9.14164000	9.79101000

Further, a FAR has been raised instructing VVBs undertaking subsequent verifications of the PA, that they must ensure that the geodetic information of the geodetic information of the sites where distribution takes place in the following Monitoring Periods (MPs), over the project lifetime, are clearly stated in the corresponding ER sheet and the districts where project ICS is distributed are duly captured in the corresponding monitoring reports.

3.2.6 Threats to the Project

The steps taken to assess the presence of natural and human-induced threats identified by the project to the expected sustainable development benefits during the monitoring period are discussed below:

Nature-induced Threats		
Threats	**Solution**	**VVB Assessment and Conclusion**
Vulnerability to natural disasters, Nigeria is prone to droughts and floods since the last few years, and this could lead to displacement and usage discontinuance of the project device	The project device made available with the project activity is mobile, light weight and can be carried by the device user easily for long distance.	As confirmed by the assessment team during the site visit /7/ interviews with end users /11/ and review of the manufacturer's specification/49/ of ICS, the project stove is mobile, light weight and can be easily rebuilt with the available material in the village. The assessment team has physically verified the stove weight, scope for

arising from mass migration.		mobility and reassembly of the project stove during site visit. /07/ Thus, the threats due to climate Crisis induced displacement/migration of the ICS is negligible.
Climate change and deforestation can lead to scarcity of non renewable fuel like charcoal . Climate change negatively affects agricultural yields, reducing reliable income streams in the local community and thus availability of funds to purchase the project device.	Although scarcity would seem to support the use of ICS technology, there can be a foreseeable future where the effort and economics behind procuring charcoal could make other fuels a more sustainable option. UpEnergy will plan regular communication with the stakeholders involved with project activity and will encourage discussion on sustainable management of natural resources.	The assessment team confirms that the PP keeps abreast of developments in the field as in constant contact with concerned stakeholders. The PP is also committed to developing and evolving as 'technology agnostic', focusing on 'on sourcing the best possible solutions for local contexts.', as stated on their official website/51/. The same has been verified by assessment of their project list/50/, which showcases innovations like e-cookstoves, thus ensuring that innovation in cookstove technology will be introduced in case of change in fuel status.
Human-induced threats		
Altering the stove design or neglected maintenance of the project device can lead to reduced output from the device	UpEnergy has a dedicated sales team on ground who are duly trained with handling and mechanics of the project device who will continue to assess the condition of the project device at regular intervals to avoid the above-mentioned threat. Moreover, UpEnergy's sales team will also train and educate the beneficiary household about the working and maintenance of the project device.	Assessment team during the interviews/11/ with the end-users received positive feedback regards with UpEnergy's grievance redressal mechanism. End Users responded in the positive when asked about the after-sale care provided by UpEnergy and Climate Catalyst. It is also concluded from interview with beneficiary that UpEnergy representatives have carried out awareness exercises to inform HH of working and maintenance of the stove Interview with on ground Sales Team/11/ also confirmed their robust

		assessment of stoves conducted regularly. Assessment of Training Records, Participation attendance/29/ and Training material/28/ by VVB confirms the skill and knowledge of the on-ground team regarding the maintenance and functioning of the ICS. It is concluded from site visit interviews that PP conducted routine spot audits to detect defects and issues in the stove maintenance and functioning. Moreover, the lifespan determined ex-ante is confirmed as 7 years as per the technical specification of the cookstove/49/. The stoves beyond their lifetimes will be eliminated from the database automatically.
Slow progress in the population's perception to adopt new technology resulting in poor sales.	UpEnergy's on ground team will make efforts in the project area to explain the depth of the project in participants' native language and from their cultural perspective, so that they can reap all the benefits available from the undertaken project.	It is confirmed during site visit interviews and desk review that the PP the awareness measures as proposed by the PP are robust and reasonable and implementable. Records from LSC/30/ confirm that information is mediated to beneficiaries in their local language.

3.2.7 Benefit Permanence

The following documents are assessed by the verification team to verify the project's benefit after project activities cease.

Project database/20/

Monitoring Survey records /17/

Training material/28/

End User Agreement and Proof of start date /18/14/

Stakeholder Consultation Meetings/30/

Interviews with stakeholders and end users during site visit/11/

Literature Review

In PD it is mentioned that to ensure the ICS project's long-term viability and the permanence of ICS and other program benefits, PP has committed to the following long-term aims:

1. Awareness campaigns will be conducted at a regular interval to disseminate the multiple benefits on adoption of project ICS. The has been verified by the assessment team on site visit/7/ and through other resources like training session records/28/29/, copy of flyers distributed by PP/38/ and LSC records /30/.
2. The warranty period of project ICS shall be extended till 5 years period. The same has been verified via warranty cards issued to end users /18/

Apart from this PP has also developed a comprehensive (six steps) and continuous grievance redressal mechanism which continuously addresses the challenges associated with distribution and use of ICS or any other concern associated with the project activity to foster trust and sense of reliability amongst beneficiaries. Assessment team verified the same by ensuring presence of Grievance Register /31/ at PP's branch office and interviewing end users who ascertained ground staff's prompt response to any issues which arise. /11/The PP also maintains electronic record of the grievance register and the same has been shared with VVB assessment team. /11/

UpEnergy also provides training/28/ to locally recruited staff which ensures development of employable skills, thus ensuring their ability to secure livelihood even when project ceases.

3.3 Stakeholder Engagement

3.3.1 Stakeholder Consultation and Adaptive Management

The local stakeholder consultation process has been described under Section 2.2.3 of the SD VISta PD/4/and the adaptive management has been described in section 2.2.1of SD VISta MR/5/. The project is undergoing first SD VISta verification and local stakeholder consultation was conduction during validation process as has also been confirmed during VCS Validation process/4.2/. The assessment team conducted desk review and on-site assessment/7/ to confirm that the Project Participant correctly identified the relevant stakeholders such as local NGOs, representatives of local authorities, target project ICS users. The local stakeholder meeting was conducted on 23/06/2022. The participants across the host country (Nigeria) were invited and informed about the meeting through email invite, newspaper advertisement and Linkedin/social media announcement notifying the date, time and location of the event. The attendance sheet, photos and videos of the local stakeholder meetings were submitted as evidence by the PP/30/.

All questions raised by stakeholders were answered and documented by the PP and their representatives. Stakeholders had no comments/complaints/grievances by the end of the meeting which could have any significant modification in the project description or its design. The date and mode of invitation were confirmed from telephonic interviews of the LSC participants conducted by verification team. VVB team was also able to confirm through the interviewed stakeholders that they were part of the LSC meetings conducted by the PP and were found to be aware about the proceedings of the meeting including benefits of the improved cookstove, including lesser smoke, lesser time in wood collection, lesser wood consumption, etc. The end users also confirmed that the PP had conducted live demonstration as to how to operate the ICS. As per the VVB's assessment, PP had addressed all questions and responses of all the stakeholders with satisfaction and for future grievances PP has provided the communication details that can be used for placing the complaints after the implementation of the project.

During the LSC, key pointers were presented by UPEnergy, and Blind Assessment and Consultation Feedback Forms were also shared. The copy of same has been assessed by VVB as evidence. /32/

The PP has a continuous grievance mechanism in place for the local stakeholders. The beneficiaries of the project ICS have been provided with the following means to contact the PP:

- Directly registering complaints at the nearest cell office or reaching out to retail partners.
- A toll-free helpline on which the end users can seek assistance.
- E-mail at technical@upenergygroup.com

It was confirmed during the on-site audit/07/ that PP has an efficient grievance mechanism and proper ongoing communication with stakeholders and no negative complaints was received from the end users, for the current monitoring period. The VVB team found that the grievance book was present in the local office.

The single feedback received during the monitoring period was pertaining to doubts on stove usage process, and the ground staff provided the end user, retraining on the same. This was confirmed through the client's confirmation of closure of issue, found in the Grievance Records maintained electronically. Further the ground staff were interviewed during on site visit/11/ on the corrective actions they undertake when such issues arise. The responses were found to be in line with that recorded in the grievance records.

Physical interviews with on ground salespersons confirmed that they had been sufficiently trained to record, revert, and resolve grievances reported by HHs. /11/

It is important to note that during the distribution of ICSs before the initial stakeholder consultation, careful consideration was given to ensure that stakeholders had the opportunity to assess impacts, raise concerns about potential negative effects, express their desired outcomes, and provide input. It has been confirmed that the in-person stakeholder consultation meeting held on June 23, 2022, complied with the requirements outlined in VCS Standard version 4.2,

section 3.17, which was the most recent applicable standard at the time. Additionally, the project's stakeholder consultation process met the requirements of VCS Standard version 4.4, paragraphs 3.18.3 to 3.18.5, as applicable during validation. Since the project was conceptualized as both a VCS project and later as part of the SD VISta program, there was no need for a separate demonstration of compliance with the requirements of Section 3.18 (including the Local Stakeholders Consultation process) of VCS Standard version 4.4. The VCS Project Description (PD) was made available for public comment from March 29, 2023, to April 28, 2023, and subsequently followed the SD VISta labelling process. According to VCS Standard version 4.4, the local stakeholder consultation must be conducted prior to validation, which was fully complied with by the project proponent (PP), ensuring that local stakeholders had sufficient time and opportunity to express their feedback and concerns.

The PP distributed a single batch of ICSs in May 2022, with only 73 units (~4.4% of the total distribution) distributed before the physical stakeholder meeting, as evidenced by the project's cookstove distribution database. Furthermore, the PP did not receive any specific comments or feedback regarding the design of the improved cookstove during the physical stakeholder meeting, so the original design remained unchanged.

In line with VCS Standard version 4.4, paragraph 3.18.4, the PP has established an ongoing communication channel that encourages various stakeholders to provide feedback on the project's impact, design, etc., through a continuous stakeholder feedback process, as highlighted in the 'mechanism for ongoing communication with local stakeholders' in Sections 2.2.1 and 2.2.7 of the SD VISta monitoring report, which has been previously assessed in this section of the verification report.

Moreover, as previously discussed in this section, the project has not received any negative feedback from any stakeholders, including comments related to the project design, up to the submission of project documents to VERRA on November 7, 2023. The VVB also observed, as stated in section 1.8 of the Validation Report and Verification Report, that all interviewees, whether during in-person interviews with end users during the onsite visit or telephonic interviews with other stakeholders, expressed positive opinions about the project, acknowledging that it delivered benefits to them. Consequently, the VVB concludes that the stakeholder consultation process was effective and adequate

3.3.2 *Anti-Discrimination*

The verification team checked and confirmed that UpEnergy Group and its Subsidiary Climate Catalyst/19/ does not discriminate based on race, age, colour, sex, national origin, physical or mental disability, or religion. For this end, assessment team interviewed employees, workers and end users. /11/ PP has submitted UPE Group Policy /24/and Staff Handbook /26/ which documents their commitment to propounding equality and the stringent punishment meted to those who violate the same.

3.3.3 Worker Training

The PP conducts continuous learning and training sessions for employees who are recruited from the local community. Interviews during the site visit confirmed employees were trained and well-versed in the skills needed to carry out their jobs. /11/. 3 training sessions were organised for the workers during current MP.

The assessment team verified the information from several sources, which are:

1. Training Records and Participation Attendance/29/

2. Training coursework- PPTs/28/

3. Employee Records/33/

The audit team deems that the project has properly identified the training needs and delivered adequate capacitation to project's workers for them to perform their activities in a safe and effective manner.

3.3.4 Equal Work Opportunities

The verification team assessed and confirmed that UpEnergy and its subsidiary Climate Catalyst provides equal employment and advancement opportunity to all regardless of age, gender, race, religion, colour, disability, national origin, or any other legally protected category which is mentioned in Non-discrimination policy in Section 5.4 of the UPE Group Staff Handbook/26/ which was verified in the assessment process. During site visit, interviews/11/ with the workers confirmed that equal work opportunities are provided to all the workers. Moreover, Employee records confirmed that the work force included diverse people from different genders and age groups. /33/The employee records submitted by PP mentions age and gender of all employees thus, demonstrating that youth and women have been recruited in the workforce in equitable manner.

3.3.5 Workers' Rights

The adherence to laws including, national, sub-national, state, and local, as well as policies, laws, rules, and regulations was validated during the validation process. /4/. The same was verified again by the assessment team.

The assessment team verified that via onsite assessment/7/, interviews/11/, desk review of evidences submitted and literature review of credible published writings available in the public domain/35/ that workers have been treated in line with labour law specified in section 7(3) of the Constitution of Federal Republic of Nigeria (1979). /36/

Nigeria is part of the ILO convention and UPE treats its workers is in accordance with the terms and conditions are as per Core Labour Conventions of the International Labour Organization (ILO)/34/.

3.3.6 Occupational Safety Assessment

The verification team assessed and confirmed that UpEnergy Group's Health and Safety Policy (2023 Version)/27/ abides by the National Policy on Safety, Health, and Environment at Workplace. /37/

Interviews with workers revealed /11/ that Up Energy provides necessary protection instruments such as safety shoes, gloves, helmets, glasses etc. to workers involved in warehouse handling in order to protect the health and safety of the employees as per National Policy on Safety, Health, and Environment at Workplace

3.3.7 Feedback and Grievance Redress Procedure

Section 2.2.7 of the SD VISta MR describes the Feedback and Grievance redressal Procedure via a Flowchart which earmarks 6 steps.

The grievance book is kept at Climate Catalyst's Nigeria office addressed 'Close 48, H167, VGC, Lagos, Nigeria'. The office was visited during site visit/7/ and its presence was verified. PP also maintains electronic backup of the grievances and the same was shared with VVB assessment team. PP has also made available telephonic and e mail access to register complaints. Both of these (toll free telephone number and E- Mail ID) have been verified to be functional. ICS distribution receipts/20/ and flyers/38/, which carry the toll-free number for customer care service, have also been assessed to verify the same.

The only feedback received during the current monitoring period was related to doubts about how to use the stove. The same has also been mentioned above in section 3.3.1. The staff on site addressed this concern by providing additional training to the user. This resolution was verified by the client's confirmation of issue closure, as documented in the electronically maintained Grievance Records. Moreover, during an on-site visit, the ground staff were interviewed about the corrective measures they implement in similar situations. Their responses were consistent with the information recorded in the grievance records.

3.3.8 Stakeholder Access to Project Documentation

Section 2.2.8 of SD VISta MR mentions that printed copies of Project Design Document is made available to stakeholders at Climate Catalyst Ltd.'s offices. The presence of the same was confirmed by VVB during on site visit. /7/

3.3.9 Information to Stakeholders on Verification Process

The PP notifies the end users and their families that they are a part of a project that provides the improved cookstove at subsidized cost to enhance respiratory health, family finances, reduced cost of fuel and times saving and the environment.

During on site assessment/7/11/ it was confirmed that all the stakeholders know the process of SD VISta project assessment via on ground staff, social media, the Up Energy website, announcements through training, community sensitization programs and public releases.

UpEnergy and its local partners inform them through phone, social media, email or in person or mouth of word, in their local language, which is confirmed during site visit interviews with different stakeholders and end users/7/11/.

Further it was verified that the PA was in compliance with paragraph 3.5.5 of the SD VISta program guide/1/ which states that," The project proponent shall also provide notification of any upcoming assessor site visits to potentially affected stakeholders, preferably with 30 days' notice. Such notification shall indicate the assessor's name, assessment team leader, dates, and locations of the audit, contact details, and means of communicating with the assessment team." The end user had been intimated of all the above pointers by local, on ground staff, 30 days in advance to the assessment team's visit in May,2023. This was verified via interviews with various stakeholders/11/.

3.4 Project Management

3.4.1 Avoidance of Corruption

In section SD VISta MR section 2.3.1 /05/, Up Energy has provided details of the anti-corruption in regard to the project and in general. Up Energy's policy /24/ in this regard was assessed and confirmed further during the interviews with the staff of Up Energy, its associates and end users. No evidence of any form of corruption or illegality was found during the concerned monitoring period.

Further, the PP has Employee Disciplinary Code which insists a strong punishment up to criminal prosecution / termination of job for the bribery / forgery related offences. This has been verified from Annexure 1 of UPE Group Staff Disciplinary Code/25/

The audit team believes that the project management has created and established a solid and thorough framework to prevent the commission of any form of illicit acts by project proponent after evaluating all the aforementioned policies. During desk review and site visit, there was no indication of any kind of corruption or unlawful activity conducted in the project activity.

3.4.2 Recognition of Property Rights

The assessment team confirms that the ICS were distributed at subsidized prices to end users and all property rights of ICS belong to end users and carbon credit generated by the project belongs to Up Energy which is verified from Warranty Cards of End User/18/. and the same is verified during the site visit/7/11/. Moreover, as mentioned in Section 2.3.2 of SD VISta MR, that Up Energy Sales team distributes/installs ICS only on property owner's invitation; the claim was verified by assessment team during on site visit/7/ and physical interviews with end users/11/.

3.4.3 Free, Prior and Informed Consent

In SD VISta PD section 2.3.4 Free, Prior and Informed Consent mentioned that it is a voluntary project. End users are free to choose whether they want ICS or not. Warranty certificate of End User/18/ are signed between the end user and PP if he wants to take part in the project. Verification team confirms the information during desk review and site visit interview.

3.4.4 Restitution and Compensation for Affected Resources

The verification team confirmed during site visit that the project is involved in distribution of ICSs to individual households only and it will not affect any resources. Hence the need for restitution and compensation does not arise.

This has been assessed via physical interviews with end users and telephonic interviews with other stakeholders like leader of local community, government representative and grassroot level NGOs. All have corroborated to the fact that no resources have been affected detrimentally by the project activity. /11/

3.4.5 Property Rights Removal/Relocation of Property Rights Holders.

The verification team confirmed that the project is not involved in any removal of property rights or relocation of property rights holders. The project involves distribution of ICSs to individual households only and it will not involve any land use or acquisition. It is validated by ESPL assessment team, and the Warranty certificate of End User/18/ mentioned clearly about the rights of Up Energy and End Users in the project and the same is verified during the site visit/7/11/.

3.4.6 Mitigation of Illegal Activities

In SD VISta MR section 2.3.6 'Identification of Illegal Activities' identifies that there are no illegal activities found which could affect the product activity. The verification team confirmed this during site visit. The VVB assessment team interviewed end users and PP's ground staff at site. /11/ Assessment team also visited the local office in Lagos and interviewed the managerial and administrative staff. /11/to draw the above conclusion. Avoidance of corruption has already been discussed in section 3.4.1 of this report.

3.4.7 Ongoing Conflicts or Disputes

In SD VISta MR section 2.3.7, mentions the inapplicability of the issue, given the installation of ICS does not affect property rights. It is to be noted that there are no ongoing or unresolved conflicts or disputes over rights to lands, territories, and resources. Any such dispute that could affect project activity, was present or resolved during the last twenty years wasn't found. Further the verification team has not found any evidence of ongoing conflicts or dispute.

The assessment team undertook thorough assessment of all publicly available news articles and snippets for the same. /11/ The assessment team also interviewed the end users, community leader, local NGO, and government representatives to gain inference. /11/

3.4.8 National and Local Laws and Regulations

The ESPL verification team did not detect any incompliances related to laws, statutes, and regulatory frameworks about the application of improved cookstoves in Nigeria. This has been verified during desk review, site visit interview/7/ and through web search that Up Energy and its local partners obey all relevant Nigerian local laws and regulations. The project is a voluntary initiative given Nigeria does not have any mandate regarding distribution of ICS. The VVB team assessed the Nigerian Alliance for Clean Cookstove's report to verify the same /23/. Moreover, the project also does not come under purview of Environment Impact Assessment (EIA) as per Nigerian laws and regulatory framework. This was verified though General Guidelines and Procedure for Environmental Impact Assessment, Federal Republic of Nigeria /22/

An assessment of Up Energy's Group Policy/24/ validates its conformance to all local laws and regulations. Carbon Catalyst, being a subsidiary of Up Energy (as assessed via Share certificates /19/) also functions in accordance with the Group's policies.

4 BENEFITS FOR PEOPLE AND THEIR PROSPERITY

4.1.1 Stakeholder Impacts

Section 3.1 of the SD VISta MR identified the actual stakeholder impacts of project activity. The following table summarizes the means used to assess the impacts on each stakeholder group resulting from project activities:

Impact #1	Access to Improved Cooking Technology
Type of Impact	Positive, actual, direct
Affected Stakeholder Group(s)	Beneficiaries & beneficiaries' families
Resulting Change in Well-being	Since Cooking is a fundamental part of life, increased access to clean cooking to the deprived sections of society will increase their access to basic services necessary to lead a healthy and productive life. This results in a direct freeing up of cooking time & health benefits due to reducing exposure to smoke in the home, increased food security due to nutrient retention with decreased cook time. 1,566 households are benefitted during the current monitoring period
VVB Assessment	The verification team's assessment of the information from the document review, sectoral expertise and site visit interviews with PP confirms the impact of this project on the Affected Stakeholder Group(s). Interview with female beneficiaries who are predominantly responsible for cooking in the households confirmed how reduced cooking time and reduced exposure to smoke has directly improved their quality of life by ensuring nutrient retention. The assessment team verified from the project stove sale database/receipts /20/ that 1.566 stoves were distributed in 1,566 households in the current monitoring period. The impact stated in section 3.1 of MR is deemed appropriate and correct.

Impact #2	Reduction of time spent on unpaid domestic work
Type of Impact	Positive, Predicted, Direct
Affected Stakeholder Group(s)	Beneficiaries (most notably, female, elderly, and children, primarily girls)
Resulting Change in Well-being	Females who spend a copious amount of time on unpaid domestic labor, multiplied by the double/triple burden effect, have a predicted time saving which can be redirected to income-generating activities or relaxation time, contributing to enhanced conditions for gender equity. The survey results revealed that ~0.82 hour or 49 minutes /household/day cooking time has been saved from the project activity
VVB Assessment	The verification team's assessment of the information from the document review, sectoral expertise and site visit interviews with PP confirms the impact of this project on the Affected Stakeholder Group(s). Interview with female beneficiaries revealed that they have begun investing the time saved on cooking into other pursuits like stitching and rest. Interview with girl child revealed that they invest the extra time into their education. /11/ The monitoring survey records/17/ and interview with PP/11/ verifies that around 0.82 hours or 49 minutes are saved on cooking per day. The impact stated in section 3.1 of MR is deemed appropriate and correct.

Impact #3	Enhancing Job opportunity/Women Leadership
Type of Impact	Positive impact and increase employment opportunity are predicted with the project activity
Affected Stakeholder Group(s)	Local Citizens (Women and Youth)

Resulting Change in Well-being	Help in economic growth through creating more job opportunities by implementing project activity. This project activity has created 69 jobs for marketing / sales and distribution / technical employees during the current monitoring period. 3 out of the 5 individuals operating at managerial positions for the given project activity are women. 60% of the total employees working as a part of the project activity are females during monitoring period.
VVB Assessment	The verification team's assessment of the information from the document review, sectoral expertise and site visit interviews with PP confirms the impact of this project on the Affected Stakeholder Group(s). The employee records/33/ and UPE HR policy/39/ confirms the creation of 69 new jobs owing to the PA. Of this 28% of the workforce is female. Likewise, assessment team also verified that 3 out 5 managerial posts and 60 % of all post were held by female through employee records. It is to be noted that this estimate also includes the employees' part of the carbon technical team, details of which are present in the employment records. The employment records/33/include demographic details like age and gender, thus allowing the assessment to draw conclusion that jobs have been created for women and youth. The impact stated in section 3.1 of MR is deemed appropriate and correct.

Impact #4	Trainings imparted on climate change, project implementation and monitoring procedures
Type of Impact	Positive, Predicted, Indirect
Affected Stakeholder Group(s)	Implementing Partner Up Energy Staff

Resulting Change in Well-being	Training and skill development related to community engagement, survey implementation, technical trainings like conducting Water Boiling Tests (WBT) will be provided to many stakeholder groups which is envisaged to empower their lives by not only improving their employment chances but also through increased awareness levels regarding issues related to climate change, social equity. 3 staff technical trainings are conducted during the current monitoring period.
VVB Assessment	The verification team's assessment of the information from the document review, sectoral expertise and site visit interviews with PP confirms the impact of this project on the Affected Stakeholder Group(s). The assessment team verified that 3 technical training courses were conducted for staff using training attendance and schedule records. /29/. VVB assessed the training course material, Training and skill development related to community engagement, survey conduction, technical trainings like conducting Water Boiling Tests (WBT)) /28/ and interviewed workers/11/who confirmed the gain in employable skills post trainings. This will not only provide long-term employability but also through increased awareness levels regarding issues related to climate change, social equity. The impact stated in section 3.1 of MR is deemed appropriate and correct.

Impact #5	Using enabling access to clean technology
Type of Impact	Positive, Predicted, Indirect
Affected Stakeholder Group(s)	Project Beneficiaries and their families
Resulting Change in Well-being	Decreased reliance on fuel leads to resource conservation and promotes clean technology use. 1,566 households are benefitted with the cleaning cooking technology during the current monitoring period

VVB Assessment	The verification team's assessment of the information from the document review, sectoral expertise and site visit interviews with PP confirms the impact of this project on the Affected Stakeholder Group(s). VVB assessed the monitoring survey records/17/ and the KPT test results/40/ to verify the decreased consumption of renewable fuel, used for cooking. Further, it was verified from the project stove sale/receipt database that 1,566 households benefitted from the ICS. /20/ The impact stated in section 3.1 of MR is deemed appropriate and correct.

4.1.2 Mitigation of Negative Impacts on Stakeholders

The Causal Chain detected during SD VISta Validation of the project identified Negative Impact on livelihood of the local charcoal vendors as an unintended consequence of the Project Activity. However, on site assessment and stakeholder interviews during verification/7/11/ did not reveal any negative feedback from local population. No instances of loss of livelihood were reported. However, in case of any such instance, the project activity mitigates it by generating job opportunities for the local population, including women and youth. During the monitoring period a total of 69 employment opportunities have been created as verified from employment records/33/. Likewise, the trainings conducted enhanced skill development thus ensuring employability post project activity also. This has been verified via assessment training material/28/, training attendance records and schedule/29/. 3 training were conducted in the monitoring period.

VVB, thus on basis of onsite interviews/11/ and assessment of employment records/33/, training manual and attendance/28/ concludes that PA has created jobs for women and youth thus mitigating the unintended negative impact.

Also, considering the significant demand-supply gap and the over reliance of Nigerian population on fuelwood for cooking needs, decrease in the fuel-wood demand in project location is not likely to have a significant negative impact on wood vendors /48/

4.1.3 Stakeholder Impact Monitoring

The monitoring plan being implemented during verification for MP1 has been found to be incompliance with that outlined in the project design/4/. The monitoring plan is structured according to project activities and ensures that one can track the contribution on all SDGs, described in section of 1 of MR/5/.

All necessary parameters required to support all claims described in the project's net impacts are contained in the monitoring plan and are clearly described. The desk review and on-site visit interview/7/11/ with PP confirms that monitoring arrangements described in the monitoring plan are being under robust implementation. Further, the Ex-Post Monitoring Survey database/17/, CDM Standard –Sampling and surveys for CDM project activities and programme of activities/12/, screenshots of random generator /42/ and the methodology/8/ have been assessed to verify the sanguinity of the monitoring plan (and the stratified random sampling used to select ICS for monitoring survey) under implementation.

The VVB has accessed the electronic database of the PA, thus verifying maintenance of proper sales and distribution records by project implementor. It has been verified that the database/20/ contains details of installation date of ICS, UID number of appliance, Name and contact details of recipient, and Address (village, district) and GPS coordinates of the HH.

In order ensure smooth operation of monitoring survey undertaking, the enumerators were provided training on the basics of distribution and registration process. The same has been verified from assessment of training material which includes material on enumerator training, CDM Basics and Usage Survey and Guideline Training /28/29/, training attendance records and schedule/29/. VVB assessment team also interviewed the concerned workers/enumerators and received positive responses when asked about the technical aspects of the training matter. /7/11/

The Monitoring Plan under implementation has been summarised below; allows us to conclusively verify that the monitoring parameters corroborate with and have clearly defined 'impact', 'SDG Target', 'monitoring indicator', 'monitoring approach', 'procedure for calculation' and 'monitoring frequency'.

S.No.	Stakeholder Group Impacted	Impact	SDG Target	Monitoring Indicator	Monitoring Approach	Procedure for Calculation	Monitoring frequency
1	Beneficiary Household	Increase in average household savings, hence reduced poverty	***1.1*** By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day	Average savings realized due to decrease in expenditure on basic service such as cooking	Ex Post Monitoring Survey Q 5.1 "Do you save money using the project stove compared to the baseline usage?" and to calculate the monetary saving due to reduced fuel consumption through $B_{y,savings,i,j}$ SAMPLING: Stratified Random sampling with 95 per cent confidence interval and a 10 per cent	Quantity of woody biomass that is saved in tonnes per cookstove device per year divided by the conversion factor for fuelwood to charcoal (1:6) multiplied by the average cost of fuel used for cooking in project area. Average household savings = (By,savings,i,j /6/365) x Cost of Fuel By,savings - Quantity of woody biomass	Annually

					margin of error achieved for monitored parameter	that is saved in tonnes per cookstove device per year Cost of Fuel - average cost of fuel used for cooking in project area	
2	Beneficiary Household	Access to basic services	*1.4* By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	Number of households having access to improved cooking technology due to project activity	Ex post Monitoring Survey Q 4.1 Are you currently using the project stove?" SAMPLING: Stratified Random sampling with 95 per cent confidence interval and a 10 per cent margin of error achieved for proportion of operational stoves (Upy)	Number of beneficiary Households = Cumulative ICS distribution x Proportion of operational stoves (Upy)	Biennial
3	Women	Women Empowerment by creation of employment to women population	*5.1* End all forms of discrimination against all women and girls everywhere.	Proportion of women employees in the project activity	Employee list with Name & Gender obtained from HR Department SAMPLING: N/A	% of Women employees = No of Women Employees / Total Employees Strength	Annually
		Reduced drudgery	*5.4* Recognize and value unpaid care and domestic work through the provision of	Average time saving associated with cooking time	**Baseline Survey** How many hours do you cook on average per day? **Ex post Monitoring Survey**	Average time saving associated with cooking = Cooking time spent by HH in (Baseline Scenario - Project Scenario)	Biennial

			public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate		Q 4.5 How many hours did you spend cooking per day? Q 5.7 Do you see a reduction in time taken for cooking and fuel purchase? SAMPLING: Stratified Random sampling with 95 per cent confidence interval and a 10 per cent margin of error achieved for proportion of operational stoves (Upy)		
4	Women	Women Empowerment	*5.5* Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	Number of women serving in managerial/ leadership /ownership role	Employee list with Name & Gender obtained from HR Department Sampling Not Applicable	% of Women employees in managerial / leadership role = No of Women managers / Total strength of managerial positions	% of female employees
5	Beneficiary Household	Access to cleaner energy technologies	*7.1* By 2030, ensure universal access to affordable, reliable and modern energy services	Number of households having access to improved cooking technology due to project activity	Ex post Monitoring Survey Q 4.1 Are you currently using the project stove? Sampling Stratified Random sampling with 95 per cent confidence interval and a 10 per cent margin of error achieved for monitored parameter	Number of beneficiary Households = Cumulative ICS distribution x Proportion of operational stoves (Upy)	Biennial
6	Project Staff, Implementation	Training and skill development	*8.b* By 2020, develop and operationalize a global	Number of Trainings conducted in a year	Training records maintained by the project team	Number of trainings conducted in the monitoring period	Annual

	Partners, and Survey Agencies	program for youth population, thus increasing their employability	strategy for youth employment and implement the Global Jobs Pact		Sampling Not Applicable		
7	Professional, Graduates, Implementation Partners, and Survey Agencies	The project activity generates employment for marketing / sales and distribution / technical employees	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.	Number of jobs created	Employee list with Name & Gender obtained from HR Department Sampling Not Applicable	Number of jobs created in the monitoring period	Annual

4.1.4 Net Positive Stakeholder Well-being Impacts

In SD VISta MR in section 4.3 described net positive impact on different stakeholder separately, which are described below:

Category: Social Development

Quality of Employment: The quality of employment of local population, especially, women and youth has improved. At least 69 new jobs have been created in the current MP, with 28% of the work force and 60% of the managerial positions being held by women. This is a stark improvement from baseline where in there were no such regulated employment opportunities. The employment conditions adhere to the guidelines laid down in the Constitution of Federation of Nigeria and those of ILO. Further, trainings sessions conducted, ensure the skill development of locals, helping them hone their employable proficiencies.

Livelihood of poor: The improved cookstoves have also resulted in decrease of both, the amount of fuel burnt, and the time spent in cooking, consequently resulting in improved health (lesser indoor air pollution, leading to lesser spending on healthcare), and free time which can be invested in other pursuits like education and employment. Savings in time and money for cooking and boiling improves quality of life and opportunity for jobs in saved time. In the current MP, 0.82 hours are saved per household, per day.

Access to clean technologies: The project in current MP has distributed ICS to 1,566 households, thus ensuring they have access to a product which is affordable and promotes clean energy. The

traditional cookstoves used earlies not only required more fuel, thus being expensive, but also led to high instances of indoor air pollution.

Category: Economic and technical development

Quantitative employment and income generation: The project has created quantifiable employment i.e.,69 employment opportunities in the current MP. With 28% employees being female. Further 60 % of the leadership positions are also held by women. Thus there has been noticeable employment creation, given earlier there were no such employment opportunities, especially for women.

Technology transfer and new technological self-reliance: 1,566 households now have access to clean technology. All beneficiaries have been provided training to ensure self-reliance in the operation of the stoves.

The site visit interviews with stakeholders and desk review demonstrated that the project has positive impact on stakeholders. The verification team assessed the evidence provided by PP and ascertained that the parameters to ascertain impact were correct and appropriate and net impact of project on the stakeholder's is positive.

5 BENEFITS FOR THE PLANET

5.1.1 Impacts on Natural Capital and Ecosystem Services

Section 4.1 of the SD VISta MR identifies the actual impacts of project activity on Natural Capacity and Ecosystem Services. The following table summarizes the means used to assess the impacts on all-natural capital and ecosystem components resulting from project activities.

Impact #1	Reduced demand for non-renewable biomass based charcoal in the project area due to implementation of more efficient cookstoves
Type of Impact	Positive, Predicted and Direct
Affected Stakeholder Group(s)	Biodiversity, species richness, soil conservation, water conservation, wildlife conservation
Resulting Change in Well-being	Project activity reduced the consumption of non-renewable biomass by 2.75 tonnes of eq. firewood/household/annum in participant households, thus leading to saving of 792 tonnes of Non-renewable biomass over the course of the monitoring period which contributed towards reducing deforestation in the project area

VVB Assessment	The verification team's assessment of the information from the document review, sectoral expertise and site visit interviews with PP confirms the impact of this project on the Affected natural capacity and ecosystem services (s). It is verified from the Draft VCS Joint Validation and Verification Report/43/, VCS Ex Post ER Sheet/6/, Ex Post SDG Calculation Tool /10/, fnRB Report and calculation sheet/44/, WBT test results /45/ and desk review that there has been a drop in use of nonrenewable fuel i.e. charcoal. Participant households save 2.75 tonnes of equivalent firewood per year, resulting in a total saving of 792 tonnes of non-renewable biomass throughout the monitoring period. This resulting drop in demand for fossil fuel, is expected to reduce the deforestation undertaken to source the fuels, hence having a positive impact on biodiversity, species richness and soil conservation. Further assessment of peer reviewed (Elseiver Toxicology reports, USDA – Moscow Forestry Science Laboratory results) scientific papers /47/ substantiates direct correlation between reduced deforestation and improved river health and soil heath. The impact stated in section 4.1 of MR is deemed appropriate and correct.

Impact #2	Avoided emission of GHGs made possible through the use of SmartHome Pro
Type of Impact	Positive and Direct
Affected Stakeholder Group(s)	Biodiversity and Species Richness, Soil and Water Conservation
Resulting Change in Well-being	The project stoves require less fuel for producing same amount of thermal energy therefore resulting in lesser carbon dioxide emission in the atmosphere. As carbon dioxide is a greenhouse gas, its reduced emission translates to positive impact against climate change. Total emission reduction in the current monitoring period is 1,459 tCO_2eq.

VVB Assessment	The verification team's assessment of the information from the document review, sectoral expertise and site visit interviews with PP confirms the impact of this project on the Affected Natural capital and Ecosystem service (s). It is verified from the Draft VCS Joint Validation and verification report /43/ and the Ex-Post SDG calculation tool for MP1/10/that the project avoided emission of GHGs by 1,459 tCO_2e in the monitoring period. Assessment of peer reviewed scientific papers (Elsiever-Environmental Pollution)/47/ confirms direct correlation between improved biomass cookstove intervention and improved air quality which in turn has positive impact on biodiversity and specie richness. The impact stated in section 3.1 of MR is deemed appropriate and correct.

5.1.2 Mitigation of Negative Impacts on Natural Capital and Ecosystem Services

To assess the measures needed and designed to mitigate any negative impacts on natural capital and ecosystem service verification team assessed the MR, supporting documents, conducted on site assessment /7/ and interviewed the PP and end users/11/ and thus concluded that no negative impacts have been identified on natural capital and ecosystem services on implementation of project activities during the monitoring period. Also, as per host country laws, grouped project pertaining to ICS distribution does not need to conduct EIA/22/ thus verifying the lack of negative impact of the project type on environment.

ESPL assessment team concluded that the project is not expected to cause any negative impacts on natural capital and ecosystem services, hence there is no requirement for any mitigation.

5.1.3 Natural Capital and Ecosystem Services Impact Monitoring

The monitoring plan being implemented during verification for MP1 has been found to be incompliance with that outlined in the project design/04/. The monitoring plan is structured according to project activities and ensures that one can track the contribution on all SDGs, described in section of 1 of MR/05/.

All necessary parameters required to support all claims described in the project's net impacts are contained in the monitoring plan and are clearly described. The desk review and on-site visit interview/07/11/ with PP confirms that monitoring arrangements described in the monitoring plan are being under robust implementation. Further, the Ex-Post Monitoring Survey database/17/, CDM Standard –Sampling and surveys for CDM project activities and programme

of activities/12/, images of random generator /42/, methodology/8/ have been assessed to verify the sanguinity of the monitoring plan under implementation.

The Monitoring Plan under implementation has been summarised below, allows us to conclusively verify that the monitoring parameters corroborate with and have clearly defined 'impact', 'SDG Target', 'monitoring indicator', 'monitoring approach', 'procedure for calculation' and 'monitoring frequency'.

S.No.	Natural Capital Impacted	Impact	SDG Target	Monitoring Indicator	Monitoring Approach	Procedure for Calculation	Monitoring frequency
1	Forest Ecosystem adjoining project implementation area	Reduced demand for non-renewable biomass based charcoal in the project area due to implementation of more efficient cookstoves	*12.2* By 2030, achieve the sustainable management and efficient use of natural resources	Decrease in specific fuel consumption	Ex Post Monitoring Survey Q 5.1 Do you see reduction in fuel consumed on project stove when compared to that traditional stove? SAMPLING This parameter will be monitored under VCS program for the said project with only the results obtained during corresponding SD VISta MP being considered in estimations. No separate sampling or monitoring will be undertaken under SD VISta program	Based on VMR 0006 meth version 1.1 Eq 3 & 6 By,savings,i,j = Bold,adjusted x (1 - ηold / ηnew,I,j) $Bold, adjusted = Bold \times (1 - \mu_y)$ B_{old} = Annual quantity of woody biomass that would have been used in the absence of the project activity (in tonnes per device) to generate useful thermal energy equivalent to that provided by the improved cook stove Bold = Adjusted B.4/ to account the ex post usage of charcoal in baseline cookstove(s) by project households in addition to improved cookstove (in tonnes per device) ηold = Efficiency of baseline cookstove $\eta new,i,y$ = Efficiency of the improved cook stove type i and batch j determined	Annually

						through water boiling test (WBT)	
2	Atmosphere	Reduced levels of emissions and household air pollution	***13.2*** Integrate climate change measures into national policies, strategies and planning	Amount of GHG emissions avoided or removed	N/A SAMPLING This parameter will be monitored under VCS program for the said project with only the results obtained during corresponding SD VISta MP being considered in estimations. No separate sampling or monitoring will be undertaken under SD VISta program	Based on VMR 0006 meth version 1.1 Eq 2 $ER_{y,l,j} = B_{y,savings,l,j} \times f_{NRB,y} \times NCV_{wood\ fuel} \times (EF_{wf,co2} + EF_{wf,non\ CO2}) \times N_{y,l,j} \times 0.95$	Annually
3	Forest Ecosystem adjoining project implementation area	Increase in Above Ground Biomass	***15.1*** By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements	Amount of Non-renewable biomass saved	Ex Post Monitoring Survey Q 5.1 Do you see reduction in fuel consumed on project stove when compared to that traditional stove? SAMPLING This parameter will be monitored under VCS program for the said project with only the results obtained during corresponding SD VISta MP being considered in estimations. No separate sampling or monitoring will be	By,savings,i,j x Ny,l,j By,savings,i,j - Quantity of woody biomass that is saved in tonnes per cookstove device of type I and batch j during year y Ny,I,j - number of operational cookstoves in the monitoring period	Annually

					undertaken under SD VISta program		

5.1.4 Net Positive Natural Capital and Ecosystem Services Impacts

It has been verified from Ex Post SDG Calculation tool /10/ and the VCS Ex Ante ER Sheet for Joint Validation and Verification of project activity /43/ that 1,459 tCO_2e of emission reductions have been generated in the concerned monitoring period. Hence there has been a net positive impact on Natural Capital and Ecosystem Services. It has been verified from the project database/20/ that a total of 1,566 ICS have been distributed in the host country Nigeria during the monitoring period.

The SD VISta PD during Validation stage describes net positive capital and ecosystem services benefits for Water Quality, Soil Condition and Air Quality.

The positive effects of the project activity on water quality, soil condition, and air quality were determined by the VVB assessment team through a thorough desk review and their expertise in the specific sector. To draw conclusions, the team consulted various published sources in the public domain, including scientific papers from Elsevier's journals such as 'Toxicology Reports,' which focused on the impact of coal microparticles on marine organisms, and 'Environmental Pollution,' which explored the effects of improved biomass cookstove interventions on indoor air quality and blood pressure. Additionally, the team referenced the USDA report on 'The Effects of Forest Management on Erosion and Soil Productivity' (47) to support their assessment.

6 OPTIONAL: CLIMATE MODULE

Not applicable since Project does not describe Climate Module which is an optional requirement.

7 OPTIONAL: SD VISTA ASSETS

Not applicable since Project does not describe Climate Module which is an optional requirement

8 VERIFICATION CONCLUSION

The Project Participant, UpEnergy Group, has commissioned the VVB, Carbon Earthood Services Private Limited to perform an independent validation and verification of the VCS Project Activity "UpEnergy- Social and Climate Impact Programme-Nigeria-1". This report summarizes the findings of the verification of the project, performed based on SD VISta criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The verification process was performed based on all guidance and criteria as provided in SD VISta Standard /01/ and SD VISta Program Guide /02/

The review of the SD VISta MR/5/, Ex-Post SDG Calculation Tool/10/, the project PD/4/, supporting documents, on-site inspection/7/, and subsequent follow-up actions (independent research of information) has provided Earthood with sufficient evidence to determine the fulfilment of stated criteria.

ESPL verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. ESPL planned and performed the verification by obtaining evidence and other information and explanations that ESPL considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

The proposed project aims to improve household and community access to improved cookstoves by distributing high thermal efficiency, low greenhouse gas emission cooking stoves known as Improved Cook Stoves (ICS) to households of Nigeria. The project contributes towards 07 SDGs out of 17 SDGs. This verification was carried out using a risk-based approach. 03 Corrective Action Request (CAR), 02 Clarification Requests (CL) and no Forward Action Requests (FAR) were raised and successfully closed during the verification process.

VVB confirms that the project complies with the verification criteria for project set out in the Sustainable Development Verified Impact Standard/1/ and the SD VISta Program Guide /2/, including a reasonable level of assurance for the verification. **The ER claimed during SD VISta verification are in line with those claimed under VCS for the same monitoring period.**

As a result, the assessment team of ESPL confirms that:

- The project fulfils criteria of SD VISta Standard /01/.
- The project is in line with all relevant SD VISta requirements /1/2/
- The achieved project SDGs are sufficiently justified in the SD VISta MR /05/.

Verification Period: 07/05/2022 – 31/10/2022

Verified SDG targets achieved during verification period:

SDG Targets achieved	Baseline SDG Value	Project SDG Value	Leakage (where applicable)	Net SDG targets Achieved
SDG 1.1($/day/HH)	0.44	0.20	-	0.23[11]
SDG 1.4 (No. of HH)	0	1,566	-	1,566
SDG 5.1(% female employees)	0	28%	-	28%
SDG 5.4 (hr/day/HH)	2.45	1.63	-	0.82
SDG 5.5 (Number of women serving in managerial roles)	0	60%	-	60%
SDG 7.1 (No. of HH)	0	1,566	-	1,566
SDG 8.b No. of trainings/year)	0	3	-	3
SDG 8.5 (No. of jobs created)	0	69	-	69
SDG 12.2 (tonnes of eq. firewood/annum/HH)	5.13	2.38	-	2.75
SDG 13 (Amount of GHG emissions avoided)	0	1,459	-	1,459
SDG 15.1) (tonnes of eq firewood/annum)	0	792	-	792

[1] Values have been rounded up to two places after the decimal. The actual values for SDG 1.1 in baseline, project scenario and their difference are 0.4360,0.2024 and 0.2337 respectively.

SDG Targets achieved	Ex ante values	Project Values	Percent difference	Justification
SDG 1.1($/day/HH)	0.22	0.23	-4.54%	There is a marginal increase in household savings by 0.01$. This is attributed to the conservative approach employed during ex ante calculations.
SDG 1.4 (No. of HH)	71,250	1,566	-97%	This is owed to the reduced distribution of ICS undertaken in the current monitoring period.
SDG 5.1(% female employees)	50%	28%	-44%	It had been envisaged that project activity would lead to an ideal 1:1 representation of both genders, however owing to lack of willing local female applicants during recruitment, lower numbers were achieved.
SDG 5.4 (hr/day/HH)	1	0.82	-18%	There is a difference of 11 mins, between ex ante and project time savings. This is based on monitoring survey response from end users.
SDG 5.5 (Number of women serving in managerial roles)	50%	60%	+20%	Increase in female representation was achieved since 3 out of 5 leadership roles were held by women. This is owed to the inclusion of the carbon technical team into the workforce, which is currently headed by a woman.
SDG 7.1 (No. of HH)	71,250	1,566	-97%	There is a difference of 97% percent between ex ante and achieved numbers. This is attributed to the lower number of ICS distribution undertaken in the current monitoring period owing to logistical and managerial choices of PP. The ex-ante estimation had been done for an entire year (i.e. 12 months/ 365 days), however PP has considered the first monitoring period only from 07/May/2022 to 31/October/2022, hence resulting in lesser number of stoves being distributed. Further, given that the PA is a pilot project, hence market penetration was low, and implementation took longer time.
SDG 8.b.1	5	3	-40%	Ex ante estimation had been done taking into consideration a much larger work force. Given

(No. of trainings/year)				the significant drop between ex ante and actual ICS distribution, resulting in the subsequent reduction in the envisaged work force. Thus, lesser number of trainings were required to train the smaller number of employees.
SDG 8.5 (No. of jobs created)	150	69	-54%	A significant drop in the no. of ICS envisaged to be distributed in ex ante conditions, and those distributed in the project, resulted in a dip in number of employees required for operation of the project.
SDG 12.2 (tonnes of eq. firewood/annum/HH)	2.57	2.75	0.07%	Negligible increase has been observed in the firewood savings per annum per household. This can be attributed to the 'annual discount factor for efficiency loss' accounted for in the ex-ante calculation, in accordance with the methodology VMR0006. Given that the project value is for the 1st MP, the loss in efficiency of stove has been lesser than the default set by the methodology. Likewise 'The Baseline stove usage factor to account for use of baseline cookstoves along with improved cookstoves '(μy=0.06), ascertained from the Monitoring Survey has been found to be lesser than default value (0.10) used in ex ante calculations, affecting eth minor increase in fuel savings.
SDG 13 (Amount of GHG emissions avoided)	169,004	1,459	-99.13%	Project is currently undergoing verification for issuance of SD VISta credits. The difference of 99.13% is observed due to the difference in the estimated units to be installed and actual installation of ICS, therefore the values obtained are significantly lower than the estimates, and thus lead to a difference in the estimates and actuals for the ERs/VCUs. The Ex-ante value has been pr-rated for the concerned MP.
SDG 15.1 (tonnes of eq. firewood/annum)	1,87,965	792	-99.57%	As in the case of ERs, the 99.57% variance in biomass saved can be attributed to the contrast between the projected and actual installation of ICS units. Consequently, the recorded values are considerably lower than

				the initial estimates, causing a notable disparity between the projected and real numbers for ERs/VCUs.

Approved by

Dr. Kaviraj Singh

Managing Director

Earthood Services Privated Limited

Date: 21-08-2024

Place: Gurugram, Haryana

APPENDIX 1: COMPETENCE STATEMENT

Competence Statement			
Name	Anjali Chaudhary		
Education	Bachelor of technology in Civil Engineering		
Experience	8 months		
Field	Civil Engineering		
Approved Roles			
Team Leader	Yes (VM)		
Validator	Yes		
Verifier	Yes		
Local expert	Yes (India)		
Financial Expert	No		
Technical Reviewer	No		
TA Expert (X.X)	Yes (VM TA 3.1)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	19/06/2023
Approved by	Deepika Mahala (Technical Manager)	**Date**	19/06/2023

Competence Statement			
Name	Deepika Mahala		
Country	India		
Education	M. Sc. (Environment Management), GGSIP University B.Sc. Hons. (Chemistry), Sri Venkateshwar College, DU		
Experience	6 Years +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	ACM0002, AMS.I.D., AMS.I.A, AMS.III.AV, AMS.II.G, AMS-II.C		
Local expert	YES (India, Bangladesh)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.2 & TA 3.1)		
Other roles	YES (SDVISta 14)		
Reviewed by	Shifali Guleria (QM)	**Date**	28/04/2022
Approved by	Kaviraj Singh (MD)	**Date**	28/04/2022

Competence Statement			
Name	Akanksha Sengupta		
Education	M.Sc Environmental Studies, University of Delhi B.Sc Zoology, Hans Raj College, DU		
Experience	4 months		
Field	Environment Science and Policy		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	YES		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	19/05/2023
Approved by	Deepika Mahala (Technical Manager)	**Date**	19/05/2023

Competence Statement			
Name	Kumden Nanbal Luka		
Country	Nigeria		
Education	B.tech. in Urban and Regional Planning		
Experience	1+ years		
Field	Environment; Urban-Rural planning		
Approved Roles			
Team Leader	No		
Validator	No		
Verifier	No		
Methodology Expert	No		
Local expert	Yes (Nigeria)		
Financial Expert	No		
Technical Reviewer	No		
TA Expert	No		
Reviewed by	Shreya Garg	**Date**	23/11/2018
Approved by	Anshika Gupta	**Date**	23/11/2018

Competence Statement			
Name	Parul Srivastava		
Education	PhD Forest Ecology and Environment M.Sc. Botany B.Sc. Botany and Chemistry		
Experience	20 years		
Field	Forestry		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (14.1)	YES		
Other roles	Yes (SDVISta SS 1)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	13/04/2023
Approved by	Deepika Mahala (Technical Manager)	**Date**	13/04/2023

Competence Statement			
Name	Shifali Guleria		
Education	M.Sc. (Environmental Studies and Resource Management), TERI University		
Experience	3+ year		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	YES (AMS-I.A., AMS-II.G., AMS-II.E., AMS-III.A.V., AMS-I.D, ACM0002)		
Local expert	YES		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (1.2, 3.1)		
Reviewed by	Deepika Mahala	**Date**	18/02/2022
Approved by	Ashok Gautam	**Date**	18/02/2022

Competence Statement	
Name	Sumit Kaushik
Country	India
Education	Ph.D. (Social Entrepreneurship) research (Ongoing) Ph.D. (Business Administration) MBA (Communication Management) BA (Journalism and Mass Communication)
Experience	10 Years +
Field	Public Policy and Communication
Approved Roles	
Team Leader	NO
Validator	NO

Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert	NO		
Other roles	YES (SDVISta 10)		
Reviewed by	Shifali Guleria (QM)	**Date**	01/08/2023
Approved by	Deepika Mahala (TM)	**Date**	01/08/2023

Competence Statement			
Name	Ranjan Singh		
Education	BSc (Physics), MBA (Marketing)		
Experience	13 Years		
Field	Power, Utilities and Renewables		
Approved Roles			
Team Leader	YES (VM only)		
Validator	YES		
Verifier	YES		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (TA 1.2)		
Other roles	Yes (SDVISta SS 2, 4)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	29/06/2023
Approved by	Deepika Mahala (Technical Manager)	**Date**	29/06/2023

Competence Statement	
Name	Sukanya Phukan
Education	M.Sc (Environmental Science and Technology) B.Sc (Zoology)
Experience	1+ year
Field	Environment Science
Approved Roles	

Team Leader	YES (VM only)		
Validator	YES (VM only)		
Verifier	YES (VM only)		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (VM TA 1.2, 3.1)		
Other Roles	YES (SD VISta Expert SDG 13)		
Reviewed by	Shifali Guleria (Quality Manager)	**Date**	23/06/2023
Approved by	Deepika Mahala (Technical Manager)	**Date**	23/06/2023

APPENDIX II: ABBREVIATIONS

Abbreviations	Full texts
AFOLU	Agriculture, Forestry and Other Land Use
BE	Baseline Emission
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Action
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DOE	Designated Operational Entity
DVR	Draft Validation/Verification Report
EB	CDM Executive Board
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reduction
ESPL	Earthood Services Private Limited
FAO	Food and Agriculture Organization
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GP	Grouped Project
ICS	Improved Cook Stoves
ILO	International Labour Organization
IPCCC	Intergovernmental Panel on Climate Change
MP	Monitoring Plan
MR	Monitoring Report
NA	Not Applicable
PA	Project Activity
PD	Project Description
PE	Project Emission
PP	Project Participant
QA/QC	Quality Assurance / Quality Control
QMS	Quality Management System
SD VISTA	Sustainable Development Verified Impact Standard

SDG	Sustainable Development Goals
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCS-PD	VCS – Project Description
VCU	Verified Carbon Unit
VVB	Validation/verification Body
XLS	Emission Reduction Calculation Spread Sheet

APPENDIX III: REFERENCES

S.No.	Title of Document	Version	Provided By
1.	SD VISta Standard	Ver 1.0	VCS
2.	2.1 SD VISta Programme Guide 2.2 SD VISta Programme Definition	Ver 1.0 Ver 1.0	VCS
3.	VCS Standard	Ver 4.4	VCS
4.	4.1 SD VISta PD 4.2 SD VISta Draft Validation Report	Ver 1.3 Ver 1.0	PP VVB
5.	SD VISta MR	Ver 1.6	PP
6.	VCS Ex Post ER Sheet	-	PP
7.	On Site Audit Records	-	VVB
8.	Methodology: VMR0006	Ver 1.1	VCS
9.	ESPL contract with PP	-	VVB
10.	SDG Calculation Tool MP1	Ver 1.2	PP
11.	Interview Records	-	VVB
12.	CDM Guidelines Sampling and surveys of CDM project activities and programmes of activities Sampling and surveys for CDM project activities and programmes of activities	Ver 4.0 Ver 9.0	CDM
13.	Project Registry Webpage (Last accessed: 25/10/2023) *https://registry.verra.org/app/projectDetail/VCS/2673*	-	VCS

14.	Receipt of sale of first stove unit- UID:VSP00045	07/05/2022	PP
15.	Stakeholder Consultation Report	23/06/2022	PP
16.	Baseline assessment report conducted by UpEnergy and International Centre for Energy, Environment and Development (ICEED) Baseline Survey database	Jan 2022	PP
17.	Monitoring Survey Records for MP1	11/12/2022 to 19/12/2022	PP
18.	End User Agreement and Warranty Card	-	PP
19.	Share Certificate- Climate Catalyst Nigeria Ltd.	-	PP
20.	Distribution Database and ICS sale receipts	-	PP
21.	Google Earth Software Location of PA (Last accessed 25/10/2023) https://earth.google.com/web/search/9.4552,+8.40517		Others
22.	https://ead.gov.ng/environmental-guidelines-revision/		Others
23.	NATIONAL ALLIANCE OF CLEAN COOKSTOVE- https://naccnigeria.org/son-approves-national-standards-for-biomass-cookstoves-in-nigeria		Others
24.	UpEnergy Group Policy	2023	PP
25.	Up Energy Disciplinary Code	Jan,2022	PP
26.	UPE Staff Handbook	Oct,2022	PP
27.	UPE Health and Safety Policy	2023	PP
28.	Training Material- PPT	07/05/2022 – 31/10/2022	PP

29.	Training Attendance and Schedule	07/05/2022 – 31/10/2022	PP
30.	LSC Records (Minutes of the meeting, Attendance, Photos, Videos)	23/06/2022	PP
31.	Grievance Redressal Register and E Records	07/05/2022 – 31/10/2022	PP
32.	Blind Assessment Sheet and Consultation Feedback forms	-	PP
33.	Employee Records	07/05/2022 – 31/10/2022	PP
34.	Terms and Conditions of Core Labour Conventions of the International Labour Organization (ILO) https://libguides.ilo.org/c.php?g=658372&p=4651885	--	Others
35.	Obisi, Chris (2005): Substance of Employee, Industrial and Labour Relations, Lagos, Megavons (West Africa) Limited Oginni, B. 'Yemi and Adesanya, A 'Segun The Workers' Rights In Nigeria: Myth Or Reality? (2013))/	-	PP
36.	Constitution of Federal Government of Nigeria https://constitutionnet.org/sites/default/files/nig_const_79.pdf	1979	Others
37.	National Policy on Occupational Safety and Health, Federal Government of Nigeria		Others
38.	UPE Flyers	-	PP
39.	UPE HR Policy		PP
40.	KPT Test records	04/02/2022 to	PP

		07/02/2022	
41.	National Bureau of Statistics, Nigeria https://nigerianstat.gov.ng/news/78#:~:text=Highlights%20of%20the%202022%20Multidimensional,quarter%20of%20all%20possible%20deprivations.		PP
42.	Screenshot of Random sample generator	-	PP
43.	Draft VCS Joint Validation and Verification Report	-	VVB
44.	FnRB records and calculation sheets	-	PP
45.	WBT Test results	25/11/2022 to 12/01/2023	PP
46.	FAO reports : Global Forest Resources Assessment (FRA) 2020 Nigeria - Report (fao.org)	2020	Others
47.	a. MONGABAY REPORT ON NIGERIA FOREST INFORMATION AND DATA- https://rainforests.mongabay.com/deforestation/2000/Nigeria.htm (last accessed on 25/10/2023) b. DO IMPROVED BIOMASS COOKSTOVE INTERVENTATIONS IMPROVE INDOOR AIR QUALITY AND BLOOD PRESSURE- https://www.sciencedirect.com/science/article/pii/S0269749121015797 (Last accessed on 25/10/2023) c. THE EFFECTS OF FOREST MANAGEMENT ON EROSION AND SOIL PRODUCTIVITY- *https://forest.moscowfsl.wsu.edu/smp/docs/docs/Elliot_1-57444-100-0.html* (Last accessed on 25/10/2023) d. EFFECTS OF COAL MICROPARTICLES ON MARINE ORGANISMS- https://www.ncbi.nlm.nih.gov/pmc/artic	-	Others

	les/PMC8220176/ (Last accessed on 26-10-2023)		
48.	Nyarko, I.; Nwaogu, C.; Miroslav, H.; Peseu, P.O. Socio-Economic Analysis of Wood Charcoal Production as a Significant Output of Forest Bioeconomy in Africa. Forests **2021**, 12, 568. https://doi.org/10.3390/f12050568	2021	Others
49.	Manufacturers and Technical Specifications of ICS-SmartPro Home		PP
50.	upenergygroup.com/projects (Last accessed 25/10/2023)	-	PP
51.	Upenergygroup.com/technology (Last accessed 25/10/2023)	-	PP
52.	NEWS REPORT ON CHARCOAL PRICES IN NIGERIA-https://www.betaprices.com/charcoal-for-sale-in-nigeria	-	Others
53. .	WORLD BANK REPORT-https://documents1.worldbank.org/curated/en/164241468178757464/pdf/98664-REVISED-WP-P146621-PUBLIC-Box393185B.pdf(last accessed on 05/05/2023)	-	*Others*
54.	GLOBAL FOREST WATCH REPORT-https://gfw.global/42mhFpm(last accessed on 05/05/2023)	-	*Others*

APPENDIX IV: LIST OF FINDINGS

Table 1. CL from this verification

CL ID	01	**Section no.**	2.2.8	**Date :** 07/08/2023
Description of CL				

According to Section 2.2.8 of MR Ver 1.1, printed copies of project design documentation/Project description have been made accessible to all stakeholders at Climate Catalyst office. However according to SD-VISta PD, the project documentation will be accessible to stakeholders at Up Energy's regional office. PP shall clarify the nodal agency responsible, and how stakeholders may contact them regarding the same.
Project participant response **Date :** 18/08/2023
PP would like to clarify that the Climate Catalyst Ltd, a Subsidiary of UpEnergy Group - a private limited liability company registered in terms of the company in Nigeria with registration number: 1863275, hence the PD mentions Up Energy's regional office a k a Climate Catalyst Ltd, Nigeria. This has been clearly mentioned in Section 2.2.7 of SD Vista MR and Section 2.2.3 of SD VISta. However, for the sake of better clarity PP has modified the Section 2.2.12 of SD Vista PD by explicitly mentioning Climate Catalyst as a local nodal agency
Documentation provided by project participant
UpEnergy_Nigeria SD-VISta-PD-v1.2
DOE assessment **Date:** 25/08/2023
The assessment team has verified that Climate Catalyst Ltd. Is a subsidiary of UpEnergy Group, from the Share Certificates. The addition is reflected in both PD and MR. The finding stands closed.

CL ID	02	**Section no.**	5	**Date :** 07/08/2023
Description of CL				
Section 5 of SD VISta -Monitoring -Report-Template ver 1.0, states that the Optional section of Climate Module "applies only to projects that wish to demonstrate a project's net positive climate benefits. **Do not use this section to claim greenhouse gas (GHG) emissions reductions, removal (ERR) units.**" PP shall justify how PA demonstrates net positive climate benefits when it only describes Monitoring details for GHG emissions (as found in Joint VCS PD MR).				
Project participant response				**Date :** 18/08/2023
PP has deleted this Section 5 - Optional section of Climate Module and moved the contents relevant to GHG emission reductions claims into Section 4 – Benefits for the Planet in both SD VISta PD & MR as per the Template requirement				
Documentation provided by project participant				
SD-VISta-Monitoring-Report_v1.2				
DOE assessment				**Date:** 25/08/2023
VVB team finds the changes made to MR to be appropriate and in line with the project activity and the SD VISta Standard Ver 1.1. Hence the finding stands closed.				

Table 2.CAR from this verification

CAR ID	01	**Section no.**	1	**Date :** 07/08/2023
Description of CAR				

1. According to Monitoring Report Ver 1.1 around 28% of the workforce is female. However as per the employment reports submitted by PP to VVB, 5 out of the 20 permanent employees and 11 of the 46 freelancers are female, i.e., around 24% of the total work force is female. 2. MR Ver 1.1 states that 3 out of 5 senior leadership positions are held by women i.e., 60%. However according to the employment records 02 of the 04 leadership roles (50%) are held by females. PP shall justify and provide supportive for the same.
Project participant response **Date :** 18/08/2023
1. PP has confirmed and revised the total jobs created by this grouped project activity from 66 to 69 which includes the Carbon Technical team. PP has updated the employee list with the demographic details such as Age, Gender etc. and accordingly the female work force is computed to be 28%. The updated employee list of both Nigeria and Carbon Technical team are shared for VVB's reference 2. PP would like to clarify that the 03rd senior leadership staff belongs to the carbon technical team and based out at India. PP has also shared the list of carbon technical project team members located at India for VVB's reference
Documentation provided by project participant
1. Updated Employee list – Nigeria & Carbon Technical Team
DOE assessment **Date:** DD/MM/YYYY
The updated list of employees has been assessed and found to sufficiently justify the claims made in the MR. The changes arising are also suitably reflected in the MR. The finding now stands closed.

CAR ID	02	**Section no.**	1	**Date :** 07/08/2023
Description of CAR				
PP claims to provide,' training and skill development program for **youth population**, thus increasing their employability'. However, Training Attendance Records provided by PP does not specify demographic characteristics of the participants including if their age is above or below 35 years. PP shall justify PA's contribution to SDG 8.b.1 and provide supportive,				
Project participant response				**Date :** 18/08/2023
PP has furnished the list of employees by including their age details and also shared the coursework/ worksheets/training material for VVB's reference				
Documentation provided by project participant				
DOE assessment				**Date:** 25/08/2023
The VVB has assessed the revised list of employees and training materials, and finds the claims in the MR to be appropriate and sufficiently justified by suitable evidence. The finding stands CLOSED.				

Table 3. FAR from this verification

FAR ID	1	**Section No.**	3.2.5	**Date :**
Description of FAR				
VVBs undertaking subsequent verifications of the PA must ensure that the geodetic information of the sites where ICS distribution takes place in the following Monitoring Periods (MPs), over the project lifetime, are clearly stated in the corresponding ER sheet and the districts where project ICS is distributed are duly captured in the corresponding monitoring reports.				
Project participant response				**Date :** DD/MM/YYYY

Documentation provided by project participant	
DOE assessment	**Date:** DD/MM/YYYY