# PROJECT REVIEW REPORT

This project review report includes findings raised during Verra's review of the project specified below. The VVB must address the findings before the project request can be considered for approval by Verra. The project review report will be made publicly available on the Verra Registry. Confidential information may be provided in separate attachments.

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| **Project ID** | 2336 |
| **Project Name** | Energy Efficient Cook Stove Implementation in India |
| **Review Type** | Verification Approval |
| **Program(s)** | VCS Program |
| **Verification Period** | 01-April-2022 to 27-June-2023 |
| **Project Proponent** | ENEN Green Services Private Limited |
| **Methodology** | VMR0006 Methodology for Installation of High Efficiency Firewood Cookstoves, version1 |
| **VVB** | VKU Certification Pvt. Ltd. |
| **Assessment Criteria** | VCS Standard v 4.4 |
| **Date of First Issue** | 12 August 2024 |
| **Review Conclusion** | Approved |
| **Date of Final Issue** | *18 February 2024* |

## FINDINGS

| # | Finding Description | VVB Response | Status |
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| 1 | Insufficient information on improved cookstoves manufacturer and efficiency | | |
| | Issue<br>1. The VCS Monitoring Report and Verification Report do not provide any information on the manufacturer of the improved cookstoves. It is unclear how the VVB has assessed the efficiency of the cookstoves without knowing whether the manufacturer of the stoves. The name of cookstoves GTW-M mentioned in section 3.1 of the MR is not mentioned in the registered PD nor in the verification report.<br>2. The project ICS falls under Tier 1 to 2 but is claiming an efficiency of higher than 30% without an external source of air. The VVB shall provide their assessment on how they cross-verified the efficiency and manufacturer's credentials. The VVB has also not assessed how the project cookstoves fit within the multi-tire cookstove framework considering their efficiencies.<br>3. In table 13 of the verification report, VVB has mentioned about the WBT test reports, however in table 4 of the document review WBT test results are not mentioned. It is unclear how VVB has cross-verified the WBT reports.<br><br>Action Required<br><br>1. The VVB must ensure that the manufacturer is in the formal sector, i.e., provide the name of the manufacturer and the extent of its production, capacity, and management. VVB must ensure that cookstove specifications and type are consistent throughout the crediting period | **Round 1**<br>VVB Response<br><br>1. The PP has procured various parts of the ICS from different locations. The ICS were then assembled at the project location by the local ground teams and were distributed to the beneficiaries. The name GTW-M stands for "Green Tech Wood-based – Medium", which is a model name given to the ICS internally, to make it distinguishable. Hence, no information regarding the manufacturer is provided as there is no manufacturer per se. However, the registered PD is missing this information due to a typo.<br>Verification team confirmed during onsite interviews regarding the ICS Manufacturer and the same information was discussed by the PP and ground team members. Also, the name of the ICS was also discussed during the onsite visit and observation of various ICS as all depicted the name "GTW" and the model "Medium". Name of the ICS has now been added in the verification report. As there is no presence of a formal manufacturer, WBT has been conducted at the start of the project activity and reported results shows efficiency-33.25% and Lifespan Certificate-5 years in outdoor and extreme conditions inclusive of travelling. Though the cookstove is not from established manufacturer, but VVB has learned through interviews that implementor has significant experience in ICS handling and via observing team structure and ICS implemented, VVB can confirm that ICSs are of good quality and having quality material, therefore, efficiency quoted can be reasonably achieved. Further their operation and maintenance team is experienced enough to change or repair ICS quickly.<br><br>2. The Project ICS has been tested for efficiency from a third-party lab in accordance with WBT standards at the start of the | Closed |

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| | 2. The VVB shall provide their assessment on how they cross-verified the manufacturer-provided efficiency results and how project cookstoves fit within the multi-tire cookstove framework, considering its efficiencies. Please refer to the background for further information.<br>3. The VVB shall cross-verify the WBT results with manufacturers' specifications during the document review process.<br><br>Program Rule(s)/Document(s)<br>*VCS Standard, v4.4, Section 4.1.2*<br>*VCS Project Description Template, v4, Section 1.11*<br>*VCS Monitoring Report Template, v 4.2, Section 3.2,4.2*<br>*VCS Verification Report Template v 4.2, Section 4.4, Table 04, Table 13*<br>*VMR0006 vs.1 section 9.2, Appendix 1*<br><br>Background<br>Project stoves produced in the formal sector do not vary in characteristics such as design, material, critical dimensions, etc. VVB shall ensure that the manufacturer is in the formal sector and that specifications are crosschecked and justified<br><br>Per the VMR 006 version 1, Appendix 1, The ISO technical | crediting period. The efficiency was reported to be 33.25%. Hence, the project ICS falls under Tier 2 to 3[1][2][3] (refer publicly available data in the footnote). Further, the efficiency of the cookstove has been calculated using equation 4 of the registered PD and applied methodology VMR0006 v1.0. Hence, for the current monitoring period, the efficiency was 30.33% for 2022 and 30.02% for 2023 which is in accordance with the applied methodology VMR0006 v1.0 and is found to be correct as per the approach described in the applied methodology. The project ICS fall under Tier 2 to Tier 3 cookstoves on the basis of their efficiency.<br><br>3.WBT reports submitted by Third-party laboratory has been submitted by PP. The relevant details were present in the Table 4 of the verification report under Sr.no.20. The verification team has added more details for transparency.<br><br>As per secondary data available in the public domain, cross-verification from other projects was done. It was found out that the efficiency range from secondary data((VCS 2473, VCS 2664) is in similar range for the efficiency in this project<br><br>Verra Response<br>1. VVB has provided clarification on the manufacturing of cookstoves, and the name of the cookstoves has been added to the FVR.<br>2. VVB has third-party reports of WBT and provided a | |

[1] https://www.researchgate.net/figure/Tiers-for-selection-and-ranking-of-stoves-adapted-from-ISO-IWA_tbl1_282925130

[2] https://www.researchgate.net/figure/Tier-based-performance-standards-for-cookstoves_tbl3_329232209

[3] https://energypedia.info/wiki/Cooking_Energy_Matrix

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| | committee formulated voluntary performance targets to provide guidance on the performance of clean cookstoves. Accordingly, more than 30 % efficiency is achieved only with Tier 3 to Tier 5 type cookstoves. The multi-tier framework also suggests the same. Multi-Tier Framework (esmap.org)<br><br>Per VCS Standard v 4.5 section 4.1.2<br>The validation/verification body shall gather evidence to 1) Validate a project to determine conformance with the VCS Program rules and evaluate the reasonableness of assumptions, limitations, and methods that support a statement about the outcome of future activities and/or; 2) Verify a statement of historical data and information of a project to a reasonable level of assurance and ensure that the project meets the relevant materiality requirements.<br><br>Per section 6.1.1 of Registration and Issuance Process v4.5, Verra may, at its discretion, review registered projects and issued VCUs where it has concerns about the adherence of the project to the VCS Program rules and the applied methodology. | reference in the document review section. VVB has raised CL and added an assessment in the Audit Findings under Appendix C of the revised FVR.<br><br>The above issues are closed now. | |

| 2 | Incomplete /Unclear Sampling and Monitoring Plan | | |
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| | Issue<br>1. The proportion of operational cookstoves within the monitoring period is claimed to be 100 % This is highly unrealistic, given the minimal probability of 100% stove operation without breakages and abandonment near their lifetime (5 years). The project documentation does not transparently provide the measures put in place for on-time stove maintenance, support for repairs and replacement.<br>2. The project documentation does not include information on survey results under section 4.3 of the MR. The sampling calculation in the MR indicates that PP has considered the expected proportion of | **Round 1**<br>VVB Response<br><br>1. During the onsite visit through interviews with the ground team and project proponent it was confirmed that the project proponent has local ground teams that stays regularly in touch with the beneficiaries. Any grievances raised by the beneficiaries are resolved promptly starting from any repair work to replacements. This was confirmed through interviews in the sampled households and other local stakeholders. Furthermore, the ground team performs random spot checks of the ICS on a regular basis and the record of the same has | |

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| | cookstoves in operation for specific districts (Baska—0.78, Udalguri—0.59 & Barpeta—0.71) but did not specify their sources.<br>3. The FVR reported an expected proportion of 0.9 for cookstoves in operation, which is not in line with the operation rates used above in the MR. The verification report does not provide a sufficiently detailed assessment of how the proportion of operational cookstoves was verified by cross-checking on-ground monitoring and raw data.<br>4. PP has not provided any information on local/third-party implementation partners in MR. Also, the local representative of the project, Greentech Environment, is in Gujarat, while the project is in Assam. It is unclear how Green Environment manages the roles and responsibilities mentioned in section 4.3 of the MR<br><br><u>Action Required</u><br>1. The VVB must assess and confirm the completeness, conservativeness, and accuracy of the MRV practices and sampling procedures related to determining the proportion of operational cookstoves within the monitoring period under review. The VVB must also provide an objective and independent assessment based on an on-site visit and sample survey.<br>2. The VVB must ensure that PP provides the outcome of the last sampling survey conducted; variables such as the number of dependents, meals, and previous devices in MR and VVB shall justify the same and provide an assessment.<br>3. The VVB shall justify how they verify the expected proportion related to the parameter Cookstoves in operation and provide an assessment in the verification report.<br>4. The VVB shall ensure that the PP provides complete | been submitted to the VVB. These exercises ensure all the distributed ICS are operational. Any non-operational instances have already been accounted under $\mu_y$ parameter.<br><br>Additionally, after reviewing and referring secondary data of various ICS projects (VCS 2473, VCS 2664, and VCS 3109) with comparable monitoring periods and lifespan, PP found it feasible to achieve a 100% proportion of operational cookstoves, a benchmark that has been previously approved by Registry itself.<br><br>2.Section 4.3 of MR and Section 4.4 of VR now includes survey results of the sampling survey conducted for the current monitoring period. The survey team discovered that all 135 beneficiaries continued to use the improved cookstove (ICS) and reported a reduction in eye irritation and coughing caused by smoke.<br><br>3.Section 4.4 of the verification report has been updated to show the correct expected proportion of cookstoves in operation which is in line with the MR. Assessment has been provided related to the parameter- Cookstoves in Operation.<br><br>4. Greentech Environment as a company is registered in Gujarat, however, they operate across India. They have on ground team at the project locations, and they are the local implementor as mentioned in the Section 5.3 of the registered PD. As per the roles and responsibilities described in the PD, Greentech has deployed their local team and resources for ICS distribution, data collection and regular spot-check at households. Section 4.3 of the MR and Section 4.1 of the VR mentions information regarding the same. | Closed |

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| | information about the project implementation, including the partners involved in section 4.3 of the MR. The VVB shall also provide an assessment of each party's roles and responsibilities. The PP shall mention commercially sensitive information in Appendix 1 of the MR. Please refer to section 4.2.7 of the *Registration and Issuance process v 4.5* for further information on commercially sensitive information.<br><br>Program Rule(s)/Document(s)<br>*VCS Standard, v4.4, Section 4.2.1*<br>*VCS Project Description Template, v4, Section 1.11*<br>*VCS Monitoring Report Template, v 4.2, Section 4.2, 4.3*<br>*VCS Verification Report Template v 4.2, Section 4.4,4.5*<br>*CDM Guideline Sampling and surveys for CDM project activities and programmes of activities ver.4.0, section 5.1 and 5.2*<br>*CDM Standard: Sampling and surveys for CDM project activities and programmes of activities vs.09.0*<br>VCS Validation and Verification Manual section 3.3<br>Registration and Issuance process v 4.5, Section 4.2.7 | Verra Response<br><br>1. VVB has confirmed through on-site visits and survey results all the distributed ICS are operational. Any non-operational instances have already been accounted for under the $\mu_y$ parameter.<br>2. Section 4.3 of the MR and section 4.4 of the VR are updated to include the survey results of this year. VVB has raised CL and added an assessment in the Audit Findings under Appendix C of the revised FVR.<br>3. VVB has provided an assessment in section 4.4 of the FVR.<br>4. VVB has provided details of the role of the implementation partner and Greentech Environment in section 4.1 of the revised FVR.<br><br>The above issues are closed now. | |

| 3 | Incorrect comparison of ex-ante and ex-post ERRs | | |
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| | Issue<br>PP has compared the estimated emission reduction of 25,520 cookstoves with the actual emission reduction of 17,229 cookstoves, which is not the correct approach.<br><br>Action Required<br>VVB must ensure that PP compares a similar number of cookstoves for comparing ex-ante vs. ex-post emission reductions in section 5.4 of the MR. In section 5.2 of the VR, VVB shall provide an assessment and opinion. | **Round 1**<br>VVB Response<br>MR and VR have been updated to demonstrate the correct estimated emission reductions.<br><br>Verra Response<br><br>Section 5.4 of the MR and section 5 of the VR are updated to reflect a correct comparison of ex-ante vs ex-post ERRs. | Closed |

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| | Program Rule(s)/Document(s)<br>*VCS Monitoring Report template v 4.2, section 5.4*<br>*VCS Verification Report Template v 4.2, Section 5* | The issue is closed now. | |