

# PROJECT REVIEW REPORT

<b>Project ID</b>	2423
<b>Project Name</b>	<i>Distribution of Improved cook stove - Phase II</i>
<b>Program(s)</b>	VCS
<b>Verification Period</b>	<i>14-November-2012 to 13-November 2017</i>
<b>Project Proponent</b>	<i>M/s G K Energy Marketers Pvt. Ltd</i>
<b>Methodology</b>	<i>AMS II-G, version 03.0</i>
<b>Sectoral Scope(s)</b>	<i>3. Energy demand</i>
<b>Validation/Verification Body (VVB)</b>	<i>TÜV SÜD South Asia Pvt. Ltd</i>
<b>Assessment Criteria</b>	<i>VCS Standard, v4.1</i>
<b>Date of First Issue</b>	<i>01 June 2022</i>
<b>Date of Final Issue</b>	<i>17-October-2022</i>

## Summary:

An accuracy review of the Project 2423, Distribution of Improved cook stove - Phase II registration and verification approval request has been conducted by Verra in accordance with Section 4.3 of the *Registration and Issuance Process*.

The accuracy review has raised 15 assessment findings and 10 minor findings, detailed below. The VVB, in coordination with the project proponent, is hereby required to provide a response to the assessment findings presented in Section 1. The assessment findings must be addressed to the satisfaction of Verra. The VVB need not address the minor findings during this review. Please note, however, that where Verra finds consistent minor findings by the VVB in future reviews, minor findings shall be escalated to assessment findings.

This project review report will be made publicly available. Confidential information may be provided as separate attachments.

## 1. ASSESSMENT FINDINGS

### Finding 1

Section 3.4.1 and 3.4.3 of the *VCS Standard, v4.1* states that projects shall use the VCS Project Description Template and VCS Monitoring Report Template and adhere to all instructional text within the template.

Section 1.1 of the Project Description (PD) Template v4.0, requires the project proponent to provide a “brief description of the scenario existing prior to the implementation of the project.”

Section 1.1 of the PD states “The improved cook stoves through replacement of inefficient traditional cook stove will contribute towards reduction of greenhouse gas emission and by-products of incomplete combustion like black carbon, conservation of fuel wood and thereby preventing forest degradation. Successful operation of the project activity will encourage rural residents to shift from traditional cook stoves usage to the project improved and modern cook stove usage.”

Section 1.3 of the PD states “The improved cook stoves owing to its higher combustion efficiency of 29.88% in comparison to 10% efficiency of the traditional cook stoves results in efficiency improvement”

Section 1.1 of the PD should be updated to include the following information:

- Describe “the scenario existing prior to the implementation of the project.”
- Clearly define what is meant by “traditional cook stove” or “inefficient traditional cookstove”
- Justify that there is only one baseline stove found from the ‘research’ to justify the 10% (three-stone), or 20% (0.2) baseline efficiency ( $\eta_{old}$ ) as per methodology.

The VVB is requested to assess these changes and update the verification report as necessary. Specifically, the VVB is requested to update section 1.4 of the Joint Validation and Verification Report (Joint Val/Ver Report) to include a statement on how it checked that the replaced system is a three-stone fire, and not a conventional system with no improved combustion air supply.

#### PP Response:

- Brief description of the scenario existing prior to the implementation of the project has now been incorporated in section 1.1 of the Project Description.
- Inefficient traditional cook stoves are same as the traditional cook stoves. The term “inefficient” has been used to showcase that the traditional cook stoves ineffectual as compared to the improved cookstoves.
- Traditional cookstove is being used among all households in the baseline as per the baseline survey, thus thermal efficiency is considered 10% for traditional stove according to the methodology. Same has been incorporated in the VCS PD

#### VVB Response:

- Necessary changes have been updated in the joint VVR report.

#### Verra Response:

It is confirmed that the PP and the VVB have carried out sufficient corrections as per the requirements of the finding. However, the same section still states emission reductions of 60,176 tCO<sub>2e</sub>.

Finding is open

#### VVB Response:

The actual emission reductions has now been updated and made consistent in the monitoring report and the Joint Val/Ver Report.

#### Verra Response:

Section 1.4 of the VR has been updated with the achieved ERRs of 59,385 tCO<sub>2e</sub>.

The finding is closed

### Finding 2

Section 3.4.1 and 3.4.3 of the *VCS Standard, v4.1* states that projects shall use the VCS Project Description Template and VCS Monitoring Report Template and adhere to all instructional text within the template.

In Section 1.7, it is stated that the CDM project was registered on 03/12/2012. The PP is required to clarify what this contractual arrangement with Vikram Stoves and who owns the legal right to the actual project activity, in line with the guidelines listed in Section 3.6.1 of the VCS Standard v4.1

In Section 3.1 of the Verification Report, the VVB writes in page 25, *'The project activity is owned by "M/s G K Energy Marketers Pvt. Ltd.". The ownership of the project activity is verified through the following documents: Beneficiary agreements: Tripartite agreement between PP (M/s G K Energy Marketers Pvt. Ltd), Supplier (Vikram Stoves & Fabricators) and end users'*. The referred document in Section 2.2 is #7 'Ownership Document' (page 13).

The VVB is required to carry out proper assessments of documents; specify the document, how it confirmed its authenticity, and whether it was signed by all authorized parties.

**PP Response:** The tripartite agreement between the end party user, Vikram stoves and G K Energy Marketers Private Limited has been submitted to the VVB. As per the agreement the project ownership is with G K Energy Marketers Private Limited.

**VVB Response:** The tripartite agreement submitted by the PP is between the end party user, Vikram stoves and G K Energy Marketers Private Limited. The agreement clear states that the rights of the VCU rests with G K energy marketers private limited. The agreement has been signed by all the parties. Hence as per Section 3.6.1 of the VCS Standard v4.1, the project owner is G K Energy Marketers Private Limited.

**Verra Response:**

The VVB has confirmed that the tripartite agreement vests the VCU ownership to GK Energy Marketers Private Limited, who is the project proponent, and not Vikram Stoves or the end-user. This is in line with Section 3.6 of the VCS Program Standard v4.2.

The finding is closed

### Finding 3

Per the 19 April 2022 *Clarifications to the VCS Program Rules and Requirements* document, the crediting period start date is "the date on which the project began generating GHG emissions reductions or removals; equal to the Project Start Date".

1. Section 1.5: The PP includes unnecessary information not required by the applied VCS monitoring report template v4.0. Please only include information that is requested here.
2. Section 1.8: The PD shall include information on whether 14,066 cookstoves were distributed on the same date, or in batches and include the dates accordingly, consistent with the installation database. The VVB is required to ensure that the database and ER spreadsheet is furnished to Verra for review
3. Section 1.9: The project start date is given as 22/10/2012, when the project started reducing emissions. The PP shall clarify why the start of crediting period is different from the project start date as defined by the VCS Program Standard.

In the Summary Section & Section 1.4 of the Verification Report, the VVB is required to explain how it validated that the start of crediting period is consistent with the project start date in line with the requirements of the VCS Standard.

**PP Response:**

1. Only relevant information has now been incorporated in section 1.5 of the monitoring report.
2. The total number of cookstoves distributed are 14066. The dates on which the cookstoves were distributed have now been incorporated in section 1.8 of the monitoring report. The monitoring database and ER sheet has now been submitted to the assessment team.
3. The date on which the project began to generate emission reductions is 22-October-2012. The start date of the project activity has now been made consistent to the start date of the crediting period i.e. 22-October-2012. The start date of the project activity has now been updated in section 1.10 of the Project Design Document. The table has now been updated in section 1.10 as per the updated start date i.e 22-October-2012. The start date of the project activity has now been updated throughout the Project Design Document, Monitoring Report and Joint Val/Ver Report. The emission reductions have also been updated accordingly.

**VVB Response:**

1. The start date of the project activity has now been made consistent with the start date of the crediting period. The same has now been made consistent throughout the Joint Validation and Verification Report.

**Verra Response:**

1. Only required information is included in Section 1.5 of the MR
2. OK sufficiently revised
3. The Section 1.9 of the PD has been corrected with the correct start date of crediting period. The MR is updated accordingly, and the finding is now closed

#### Finding 4

In line with Section 3.4.3 of the VCS Program Standard v4.1, the project proponent shall use the VCS Monitoring Report Template or an approved combined monitoring report template available on the Verra website, as appropriate, and adhere to all instructional text within the template.

In the monitoring report title page, the start date of the monitoring period (14/11/2012) is inconsistent with the reported start date of the project activity in Section 1.8 of the PD (22/10/2012)

**PP Response:**

The date on which the project began to generate emission reductions is 22-October-2012. The start date of the project activity has now been made consistent to the start date of the crediting period i.e. 22-October-2012. The start date of the project activity has now been updated in section 1.10 of the Project Design Document. The table has now been updated in section 1.10 as per the updated start date i.e 22-October-2012. The start date of the project activity has now been updated throughout the Project Design Document, Monitoring Report and Joint Val/Ver Report. The emission reductions have also been updated accordingly.

**VVB Response:**

The start date of the project activity has now been made consistent with the start date of the crediting period. The same has now been made consistent throughout the Joint Validation and Verification Report.

**Verra Response:**

The start date of crediting period has been revised to 22/10/2012, consistent with the project start date in the VCS PD and VCS MR, and the ER spreadsheet

#### Finding 5

In line with Section 3.4.3 of the VCS Program Standard v4.1, the project proponent shall use the VCS Monitoring Report Template or an approved combined monitoring report template available on the Verra website, as appropriate, and adhere to all instructional text within the template

MR Section 2.2: The mechanism for on-going communication with local stakeholders shall be included. The VVB to clarify how it validated and verified this in the relevant section of the VR

**PP Response:**

The ongoing communication is being done via grievance/complaint register placed at the district site office. The information regarding the same has now been incorporated in section 2.2 of the monitoring report. The same has now been provided to the assessment team.

**VVB Response:**

The grievance/complaint register has been submitted by the PP. The same has been found genuine.

**Verra Response:**

The Section 2.2 of the MR includes a mechanism for stakeholder engagement. The assessment is now in section 3.3.2 of the Joint VR. The finding is closed

**Finding 6**

In line with Section 3.4.3 of the VCS Program Standard v4.1, the project proponent shall use the VCS Monitoring Report Template or an approved combined monitoring report template available on the Verra website, as appropriate, and adhere to all instructional text within the template

Section 4.2: Parameter ‘No. cookstoves in use’: It is noted that no survey was conducted in 2017. The PP and VVB shall explain how this complies with the monitoring plan frequency, and the conservativeness of the value applied given that usage rate declines over time.

The VVB is required to explain how it verified this, and the basis for closure of finding CL 03 (and section 4.1)

**PP Response:**

The survey was conducted in year 2017 on the following dates:  
28-November-2017, 29-November-2017, 01-December-2017 and 02-December-2017.  
The same information has now been incorporated in section 4.2 of the monitoring report and emission reduction sheet.

**VVB Response:**

The survey has been conducted in 2017. The survey reports submitted by the PP has been found okay. Bases on the submitted survey reports the finding CL 03 has been concluded.

**Verra Response:**

The dates indicated in the PP response above are inconsistent with the dates indicated in the Table under the parameter ‘No. cookstoves in use’. The VVB is required to explain how it verified these dates and ensure the same is reflected in the MR and the VR.  
The finding remains open

**VVB Response:**

The typographical error has now been rectified and the exact survey dates have now been mentioned in monitoring report and the Joint Val/Ver report.  
The dates have been verified by the survey reports.

**Verra Response:**

Corrected accordingly. The finding is closed

**Finding 7**

In line with Section 3.4.3 of the VCS Program Standard v4.1, the project proponent shall use the VCS Monitoring Report Template or an approved combined monitoring report template available on the Verra website, as appropriate, and adhere to all instructional text within the template

MR Section 4.2: It is noted that the monitoring period covers the stoves that were distributed from 22/10/2012. The end of the MP is 13/11/2017. This is more than the stove lifetime. The PP is required to explain how stoves more than 5 years old were excluded upon end of useful life, and include the same information in the parameter table

**PP Response:**

The date on which the project began to generate emission reductions is 22-October-2012. The start date of the project activity has now been made consistent to the start date of the crediting period i.e. 22-October-2012.

The start date of the project activity has now been updated in section 1.10 of the Project Design Document. The table has now been updated in section 1.10 as per the updated start date i.e 22-October-2012. The start date of the project activity has now been updated throughout the Project Design Document, Monitoring Report and Joint Val/Ver Report. The emission reductions have also been updated accordingly.

Hence the monitoring period does not exceed the stove life-time.

**VVB Response:**

The start date of the project activity has now been made consistent with the start date of the crediting period. The same has now been made consistent throughout the Joint Validation and Verification Report

**Verra Response:**

The VVB is requested to explain how it ensured that stoves are not credited beyond their useful life of 5 years, and include detailed information in the relevant section of the VR. As indicated in the VCS PD, stoves thermal efficiency performance falls below the methodology requirements.

The finding remains unresolved

**VVB Response:**

The declaration by the manufacturer substantiates the lifetime of the improved cookstoves of over seven years, with the operational efficiency dropping below the rated efficiency beyond five years. The project proponent has undertaken third party assessment of the cookstoves efficiency across a representative sample post fifth year of operation. The minimum efficiency of 25.03% assessed across the representative sample at the end of fifth year is conservatively considered for estimation of emission reduction. Since the operational efficiency of the improved cookstoves was assessed to be more than 20% the operation of the cookstove in the fifth year of the operation is considered to be eligible in accordance to the methodology.

The emission reductions sheet has been submitted to Verra.

**Verra Response:**

The response is found to be satisfactory. The finding is closed

### Finding 8

MR In Section 4.3 of the Monitoring report, the project proponent used an incorrect sampling equation.

The project proponent is requested to use the correct sampling equation from the *UNFCCC Guidelines for Sampling and Surveys for CDM Project Activities and Program of Activities*.

([https://cdm.unfccc.int/Reference/Guidclarif/meth/meth\\_guid48.pdf](https://cdm.unfccc.int/Reference/Guidclarif/meth/meth_guid48.pdf))

The VVB is requested to assess this update and confirm that calculations are correct.

**PP Response:** The correct sampling equation has now been incorporated in section 4.3 of the monitoring report.

**VVB Response:**

The typographical error in the monitoring report has now been corrected and the calculations have been made accordingly.

**Verra Response:**

The equation has been corrected.  
The finding is closed

### Finding 9

In line with Section 3.4.3 of the VCS Program Standard v4.1, the project proponent shall use the VCS Monitoring Report Template or an approved combined monitoring report template available on the Verra website, as appropriate, and adhere to all instructional text within the template.

MR Section 5.2: Does not represent PEy as per methodology. The methodology version 3.0 does not consider project emissions separately

**PP Response:**

Section 5.2 of the monitoring report has now been updated as per methodology version 3.0.

**VVB Response:**

Required corrections have been made in the monitoring report.

**Verra Response:**

There are no project emissions as per the CDM PD.  
The finding is closed

### Finding 10

As per Section 4.1.14 of the VCS Program Standard v4.1: 'The validation/verification body shall use the VCS Verification Report Template or an approved combined verification report template available on the Verra website and adhere to all instructional text within the template'

Section 2.2: The VVB has not included in the reference whether/what maintenance logs used to estimate the parameter 'Days of Operation' were checked and has not indicated if it interviewed any such concerned parties in Section 2.3.

**PP Response:**

Maintenance logbook has been provided to the third-party survey agency.

**VVB Response:**

Maintenance log book has been checked by the third-party agency for the number of days of operation. The same has been verified by the VVB. The CDM audit team has also cross verified the log books regarding the number of days of operation.

**Verra Response:**

The VVB is required to explain how it verified the parameter '*Days of Operation*', and include the evidence in the reference table in Section 2.2 of the VR.

The finding remains open

**VVB Response:**

As per methodology, sample survey has been conducted. In the survey conducted 100% of the sample uses improved cookstoves for 365 days. The few households who didn't use improved cookstoves on daily basis, the days in usage for the entire year has been considered as 0 for conservative purposes. The same is evident in the emission reduction sheet.

The evidence for the survey has now been incorporated in section 2.2 of Joint Val/Ver Report.

**Verra Response:**

The response is sufficient to close the finding

**Finding 11**

As per Section 4.1.14 of the VCS Program Standard v4.1: 'The validation/verification body shall use the VCS Verification Report Template or an approved combined verification report template available on the Verra website and adhere to all instructional text within the template'

Section 2.3: The VVB is required to complete the table on end-user interviews carried out during the audit on 11/10/2021 and include information on how it arrived at the number of end-users interviewed, in line with the CDM Sampling Standard v9.0

The VVB is further requested to update section 2.3 of the Joint Val/Ver Report to clarify which interviewees participated in the usage rate survey and efficiency tests. Additionally, the VVB is requested to provide more information on topics discussed. The VVB is also requested to clarify how they arrived at a sample of 11 for interviews and whether it was an acceptance sample from PP's own sample, or a sample from the 'global database'. If the 'global database', please clarify how you arrived at the required confidence /precision level in line with best practice.

**PP Response:**

Required changes have been incorporated in the Joint validation and Verification Report.

**VVB Response:**

The table regarding the end users interviews have now been completed in section 2.3 of the Validation and Verification report.

The verification team decided to draw samples mainly from the project samples selected by CME. Acceptance Sampling approach was employed by verification team, which follows the "Standard for sampling and survey for CDM project activities and programme of activities", version 9.0.

TUV SUD has taken the paragraph 39 "Table 2 Sample Size and Acceptance Number" of the "Standard for sampling and survey for CDM project activities and programme of activities", version 9.0. into consideration in order to select a random sample from the PP based on the AQL of 0.5%, the UQL of 20%, and the producer's and consumer's risk both at 5% were selected. Therefore, a sample size (n) of 22 should have been verified at least, and accordingly with 1 as the maximum number of discrepancies (acceptance number) between the verified data and the PP data. Team verified 22 samples on conservative side to validate and verify the project activity. The verification team selected random samples from the list of cookstoves installation database. Team has assessed (by remote verification, & desk review of contract document between PO & user) a total of 22 samples (randomly selected) selected from different district. The presence of project stoves was checked during the remote visit on video call. The stoves details (unique serial number, date of installation, type of ICS, name of user and address) were also checked and found to be consistent with that reported in the installation database. No inconsistency was observed for any of the 22 samples with respect to the observations in the field. Same has been incorporated in section 4.2 and 2.3 of the VVR.

**Verra Response:**

Section 2.3 has been revised and explained how the VVB conducted its audit work. Acceptance sampling approach was employed, and 22 end-users were interviewed and included in the table. The finding is closed

**Finding 12**

As per Section 4.1.14 of the VCS Program Standard v4.1: 'The validation/verification body shall use the VCS Verification Report Template or an approved combined verification report template available on the Verra website and adhere to all instructional text within the template'

Section 2.5 & Section 3.1: The VVB is required to explain in the finding CL 01 how it validated the start date of crediting period in line with the VCS Program Standard v4.1. The PP did not explain as per the VVB finding request, why the start date of the project activity is not the same as the start date of crediting period. The VVB shall ensure that the information provided is consistent with Section 1.8 of the VCS PD and 1.5 and 1.6 of the revised MR

**PP Response:** The start date of the crediting period has now been made consistent with the project start date i.e. 22-October-2012. The same has been made consistent throughout the PDD and MR.

**VVB Response:**

The start date of the crediting period has now been made consistent with the project start date. The date on which the project began to generate emission reductions is 22-October-2012. The crediting period and the monitoring period has now been made consistent throughout the monitoring report, Project Design Document and the validation and verification report.

**Verra Response:**

Corrected accordingly.  
The finding is closed

### Finding 13

Section 3.10 in the VCS Standard v4.1 states "The project location shall be provided in order to accurately describe project characteristics and to demonstrate a project's conformance with other requirements..."

Section 1.7 of the monitoring report states "The project is located in state Maharashtra, India...  
Division: Pune Districts: Solapur"

Among other requirements, Section 3.1 of the Joint Val/Ver Report Template states "Identify, discuss and justify conclusions regarding the... Project Location."

Section 3.1 states "The project location of the project activity is checked by the assessment via Google earth software and found correct in line with the CDM PDD."

Section 1.7 of the PD should be updated with a district-wise list of villages involved in the project activity.

The VVB is requested to assess this update and confirm its accuracy. In Section 3.1 of the verification report, the VVB is requested to state the location of the project.

**PP Response:**

The exact map location has now been incorporated in section 1.12 of the Project Design Document and section 1.7 of the Monitoring Report.

District-wise list of villages involved in the project activity has now been updated in section 1.12 of the Project Design Document and section 1.7 of the Monitoring Report.

**VVB Response:**

Required information has now been incorporated in monitoring report and Project Design Document by PP. The project location has now been clearly stated in section 3.1 of the Joint Validation and Verification Report.

**Verra Response:**

Districts have been added and consistent between the PD and the MR.  
The finding is closed.

**Finding 14**

As per Section 4.1.14 of the VCS Program Standard v4.1: 'The validation/verification body shall use the VCS Verification Report Template or an approved combined verification report template available on the Verra website and adhere to all instructional text within the template'

Section 4.2: The VVB is required to explain how it validated and verified each monitoring parameter and give its objective opinion on the accuracy and appropriateness of the values reported for the monitoring period.

. For each parameter the VVB is requested to:

- confirm which objective evidence (s) were checked
- whether the sampling plan prescribed in the monitoring plan was followed
- whether the confidence/precision level was achieved
- offer its opinion on the accuracy and reliability of the reported values in line with the VCS requirements

**PP Response:**

All the required confirmations has now been provided by the VVB in the Joint Validation and Verification Report.

**VVB Response:**

Necessary confirmation statement has been incorporated in section 4.1 of the Joint Val/Ver Report

**Verra Response:**

All corrections have been effected satisfactorily

**Finding 15**

As per Section 4.1.14 of the VCS Program Standard v4.1: 'The validation/verification body shall use the VCS Verification Report Template or an approved combined verification report template available on the Verra website and adhere to all instructional text within the template'

Section 5: Verification period shall be included

**PP Response:**

The verification period has now been made consistent throughout the Monitoring report and the Project Design Document.

**VVB Response:** Verification period has now been incorporated in section 5 of the validation and verification report.

**Verra Response:**

The verification period is required in the verification conclusion  
The finding remains open

**VVB Response:**

The verification period has now been incorporated in section 5 of the Verification report. The verification period is now included in Section 5 of the VR.

The finding is closed

Verra Response:

## 2. MINOR FINDINGS

### Finding 1

VCS PD: The Project Description Template has specific requirements with regards to font size, color and format. The project proponent and VVB should ensure that revised documents are submitted according to these requirements.

VCS Validation/Verification Report: The VVB shall also ensure that revisions are carried out to retain the template as designed, throughout the validation/verification report

**Response:** The desired changes have now been made in VCS PD and VCS Joint Val/Ver Report.  
OK

### Finding 2

VCS PD Section 1.11: Please include the operational lifetime of the stove, in line with the manufacturer specifications, and Section 3.1 of the monitoring report

OK

### Finding 3

VCS PD Section 1.16.2: The PD states that 'project participant is not taking REC benefits...'. This is not a renewable energy project. The MR Section 1.10 shall also be checked

**Response:** The desired statement has now been omitted in Project Description and the Joint Validation/Verification Report as this is not the renewable energy project.

OK

### Finding 4

VCS PD Section 3.1: This is a simplified baseline and monitoring methodology. Not consolidated

**Response:** Desired changes have now been done.

OK

### Finding 5

VCS PD Section 3.3: The gases in the project boundary are the same since the baseline fuel is the same. PP shall clarify why it indicates no CO<sub>2</sub> project emissions as required by the applied methodology. The improved cookstove still consume the same fuel.

OK

**Finding 6**

MR Contents Section: Please do not alter the format or font. The same applies to the entire document

OK

**Finding 7**

MR Section 1.2: The project Type is Type II, not Type II.G

OK

**Finding 8**

The project proponent is requested to provide the ERR Calculation sheet(s) for review.

OK

**Finding 9**

VR Section 2.2: In the references list the VVB shall include the referred CDM PDD as a basis for gap validation

Response: The referred CDM PDD has now been included in the Joint Val/Ver report.

**Finding 10**

VR Title Page: Please include VVB email address (always) as part of the contact

OK

### 3. ASSESSMENT CONCLUSION

On 01 June 2022, Verra sent TÜV SÜD South Asia Pvt. Ltd, M/s G K Energy Marketers Pvt. Ltd, and EKI Energy Services Limited the project review report with fifteen assessment findings and eleven minor findings.

On 02 September 2022, Verra sent TÜV SÜD South Asia Pvt. Ltd, M/s G K Energy Marketers Pvt. Ltd, and EKI Energy Services Limited the project review report with pending unresolved findings.

On 17 October 2022, Verra closed all the findings.