SUMMARY OF PUBLIC CONSULTATION

VM0050 Improved Cookstoves and Other Distributed Thermal Energy Generation Units, v1.0

A draft of the methodology *Improved Cookstoves and Other Distributed Thermal Energy Generation Units, v1.0* was open for public consultation between December 15, 2023 and January 15, 2024. This document includes a list of each comment received and the developer's response.

KEY QUESTIONS

Q1: Are there any relevant baseline or project scenarios (or combinations) that are not covered in the proposed scope of the draft methodology, but should be? *(in reference to Section 4, Applicability Conditions)*

Q1: Are there any relevant baseline or project scenarios (or combinations) that are not covered in the proposed scope of the draft methodology, but should be? *(in reference to Section 4, Applicability Conditions)*			
#	**Organization**	**Comment**	**Developer's Response**
1	Resilience Constellation Management Ltd.	The term "non-renewable biomass" in 4.1 (a) requires clearer definition, since the definition of renewable biomass is unclear - does it extend to "...biomass whose use does not contribute to the decrease in carbon pools. Further, it is doubtful as to whether increasing the efficiency of unsustainable biomass use results in a permanent emission reduction, although it may contribute to	We are working on the definition separately from the methodology. No action needed.

Q1: Are there any relevant baseline or project scenarios (or combinations) that are not covered in the proposed scope of the draft methodology, but should be? *(in reference to Section 4, Applicability Conditions)*			
#	Organization	Comment	Developer's Response
		a reduction in the rate of depletion of carbon stocks. The emphasis should therefore be on transitioning from non-renewable (unsustainable) biomass use to renewable (sustainable) biomass use.	
2	GreenCollar	We suggest that any CS projects that rely on reductions in deforestation and degradation to earn VCUs (i.e. use fNRB in their baseline to calculate VCUs) should NOT be eligible as a CS project under VCS. This is because there are significant accounting loopholes under the current approach including a lack of monitored impacts on carbon stocks and permanence of any claimed VCUs. CS projects that rely on fNRB should be required to use VM0048 - the new REDD methodology for AUD or other REDD methodologies as CS projects are already defacto REDD projects but without any of the associated REDD or AFOLU accounting integrity. The first proponents of CS projects argued that reducing non-renewable biomass (NRB) should be a new energy project type under the CDM rather than an AFOLU project because the CDM is limited to AR and did not	Not relevant. No action needed.

Q1: Are there any relevant baseline or project scenarios (or combinations) that are not covered in the proposed scope of the draft methodology, but should be? *(in reference to Section 4, Applicability Conditions)*			
#	Organization	Comment	Developer's Response
		allow REDD or other types of AFOLU projects. As a reminder, the first CS methodologies were being considered around 2004 - 2006, which is the same time REDD was first getting on the UNFCCC agenda and a number of years before the first VCS REDD methodologies were approved. The importance of reducing emissions from deforestation and forest degradation was therefore high, but there were no other carbon market options to reduce the unsustainable harvesting of fuel wood. This is no longer the case. The VCS has had REDD methodologies since 2010 and Verra should act decisively to close the accounting loophole in CS projects that rely on reducing losses of NRB to generate VCUs and make these projects operate as REDD projects. This would eliminate the loophole that CS projects do not need to account for non-permanence risk, eliminate crediting based on non-spatially specific impacts and also eliminate reliance on highly uncertain fNRB numbers that are little more than guesswork. The current approach to CS projects that rely on fNRB does not meet several of the VCS Program or VCS	

Q1: Are there any relevant baseline or project scenarios (or combinations) that are not covered in the proposed scope of the draft methodology, but should be? *(in reference to Section 4, Applicability Conditions)*			
#	Organization	Comment	Developer's Response
		Standard's criteria. For example, the VCS Program states that all GHG emission reductions and removals must be Real, Measurable, Permanent and Unique (amongst others), and the VCS Standard refers to ISO 14064-2 principles that include Relevance, Completeness, Consistency, Accuracy and Conservativeness (amongst others) - yet treating CS projects that reduce NRB as energy projects rather than AFOLU projects violates all these requirements in one way or another.	
3	Anonymous 4	Specific guidelines for Solar Cookstoves	The applicability to solar cookstoves and solar thermal devices was removed from the methodology. The methods and procedures for this type of stoves do not fall within the scope of the methodology.
4	Envirofit	No, the list seems comprehensive.	Ok. No action needed.
5	BeZero Carbon	The methodology covers all relevent baseline or project scenarios, in our view.	Ok. No action needed.
6	Modern Energy Cooking Services programme	Scenarios seem fine	Ok. No action needed.
7	Anonymous 5	Based on the scenarios (or combinations) provided in the draft	It has been identified that plant oil-fired stoves are not a widely applied technology at present, and that

Q1: Are there any relevant baseline or project scenarios (or combinations) that are not covered in the proposed scope of the draft methodology, but should be? *(in reference to Section 4, Applicability Conditions)*			
#	Organization	Comment	Developer's Response
		methodology, the proposed scope appears to cover a comprehensive range of scenarios related to energy efficiency and fuel-switch measures in cookstoves and other distributed thermal energy generation units. However, plant oil-fired stoves should also be considered in these scenarios in the applicability condition.	they have not been developed on a large scale. The technical specifications and use of this technology are complex and depend on several factors that are not within the scope of the methodology. Therefore, it has been decided not to include this type of cookstove in the methodology; additionally, methodologies that include them in other programs have not been identified. No action needed.
8	C-Quest Capital	Any solid/liquid fuel in the baseline to biogas (standalone/community) in the project scenario could be an alternative that can be explored. Efficient project devices fired by Biogas could be one of the project scenarios under Section 4, item 1 (a) and (b).	Biogas are purposefully excluded from the methodology. They are different from other ICS types included in the methodology in terms of operation and monitoring/quantification. No action needed.
9	Anonymous 3	• Yes, There is no mention of biogas fuel including how project developers can claim emission reductions from technologies using biogas. • Clarification needed on how to verify/ justify the requirements under section 4 condition 8 and 9 on the sources for renewable biomass (charcoal) especially for end users who purchase from different vendors, evidence on how the charcoal is produced (i.e. using improved kiln) may not be known. • Further, since contractual agreements	Addressed previously. No action needed for point 1. Section 4 conditions on use of renewable biomass (including charcoal from renewable biomass) apply only when biomass sources that fit the definition of renewable are introduced in the project. In this case the sources must be known and vendors must provide contractual agreements, purchase receipts, or similar proof of purchase. This is different from the case where existing sources of charcoal continue to be used during the project and there is not a guarantee of its renewable nature or the production characteristics.

Q1: Are there any relevant baseline or project scenarios (or combinations) that are not covered in the proposed scope of the draft methodology, but should be? *(in reference to Section 4, Applicability Conditions)*			
#	Organization	Comment	Developer's Response
		and purchase receipts are not provided by local vendors in most cases, survey responses provided by the end-user should suffice. Is this fixed at the start of the project or is it a monitored parameter?	No action needed for points 2 and 3.
10	DelAgua	We consider the current applicable conditions relevant.	Ok. No action needed.
11	Eni S.p.A.	Considering renewable biomass (i.e. agriculture waste, cattle manure), emissions coming from its decay should be considered in baseline scenario (methodology already applied this option as mandatory applicability condition). Regarding the adoption of gasifier stove in project scenario, we suggest to consider the contribution of biochar (obtained as stove use by-product) utilization as soil amendment at microscale level (i.e. household farming activities) by using simplified approaches (90/10 monitoring sample) and cautelative default values (biochar production per stove).	Excluding baseline emissions from pre-project decay of renewable biomass is conservative. No action needed. Biochar is outside the scope of this methodology. No action needed.
12	University of California, Berkeley	All major relevant baselines and project types seem to be covered	Ok. No action needed.

Q1: Are there any relevant baseline or project scenarios (or combinations) that are not covered in the proposed scope of the draft methodology, but should be? *(in reference to Section 4, Applicability Conditions)*			
#	**Organization**	**Comment**	**Developer's Response**
13	Anonymous 8	In the eligibility criteria, all aspects are addressed for both baseline and project scenarios, although some points require additional clarification. Please review the following instances: 1. Point 7 (Renewable biomass can be transformed into fuels like briquettes, wood chips, or charcoal.) - However, there is no specified criterion regarding the age of renewable biomass usage. 2. 14 b (Self-generated renewable electricity, with a requirement that at least 80 percent of the annual generated electricity is utilized by the project devices) - There is a lack of outlined methods or processes for demonstrating compliance with this criterion. 3.If the methodology introduces the option to calculate FNRB through TOOL30, additional criteria need to be incorporated into the applicability requirements. The activity design document must not only establish the utilization of non-renewable biomass in the activity region since 31 December 1989.	Point 1, it is unlikely that renewable biomass will be stored under the conditions and duration to generate significant anaerobic decomposition prior to being used as fuel or transformed into fuel, given that this decomposition would damage the fuel characteristics of the biomass. Therefore no maximum storage criterion is provided for renewable biomass but it is assumed that fuel providers and users will behave in a rational way. No action needed. Point 2, methods for demonstrating compliance with the criterion were added as a footnote and in monitoring table for ECp,y,j,k. Point 3, addressed previously. No action needed.

Q1: Are there any relevant baseline or project scenarios (or combinations) that are not covered in the proposed scope of the draft methodology, but should be? *(in reference to Section 4, Applicability Conditions)*			
#	Organization	Comment	Developer's Response
14	AGS Carbon Advisory	No	Ok. No action needed.
15	Project Developer Forum	Based on the scenarios (or combinations) provided in the draft methodology, the proposed scope appears to cover a comprehensive range of scenarios related to energy efficiency and fuel-switch measures in cookstoves and other distributed thermal energy generation units. However, plant oil-fired stoves should also be considered in these scenarios in the applicability condition.	Please refer to the answer (Developer's Response) in comment number 7. No action needed.
16	TotalEnergies Carbon Solutions	The methodology covers all relevent baseline or project scenarios, in our view.	Ok. No action needed.
17	EcoSafi	It appears to be complete in that respect.	Ok. No action needed.
18	Anonymous 7	We note that the applicability of the methodology likely does not extend to (i) water purification devices and (ii) biodigesters. We acknowledge that the quantification mechanics of these project types is likely sufficiently different from that of, e.g., cookstove projects that it warrants a separate methodology to address those project types. However, since some of the	Not relevant. No action needed.

Q1: Are there any relevant baseline or project scenarios (or combinations) that are not covered in the proposed scope of the draft methodology, but should be? *(in reference to Section 4, Applicability Conditions)*			
#	Organization	Comment	Developer's Response
		more impactful proposals under this M0174 are to utilize newly-developed fNRB values and novel MRV approaches, we recommend ensuring consistency across project types that would have the option to utilize the same. For example, other CDM methodologies that include fNRB may continue to use historic tools for calculation purposes, which could create an inconsistency with this M0174. We would recommend that Verra elevate these requirements to the standard level, rather than the methodology level, to ensure consistency across all project types that would apply these parameters and MRV approaches.	
19	Aera Group	Guidance should be clearer on how baseline and/or project parameters are assessed in case of multiples fuels/project technologies with a sound example.ie project replacing both charcoal and firewood inefficient whether with 1 stoves using both, or 1 stoves using one of the baseline fuels	The adjusted methods requiring Baseline KPT cover this situation of multiple fuels/project technologies with greater clarity.

Q2: How appropriate is the maximal crediting date of 31 December 2035 for project devices using liquified petroleum gas (LPG) to reduce the risk of lock-in of fossil fuel combustion as per Section 2.6 of the VCS Methodology Requirements v4.4? What do you think about the requirement for a transition plan to cleaner technologies? *(in reference to Section 4, Applicability Conditions 13(c) and (d))*

Q2: How appropriate is the maximal crediting date of 31 December 2035 for project devices using liquified petroleum gas (LPG) to reduce the risk of lock-in of fossil fuel combustion as per Section 2.6 of the VCS Methodology Requirements v4.4? What do you think about the requirement for a transition plan to cleaner technologies? *(in reference to Section 4, Applicability Conditions 13(c) and (d))*			
#	**Organization**	**Comment**	**Developer's Response**
20	Envirofit	We consider this to be a reasonable end date for validity. Possibly it can be reviewed as we get closer to 2035 and amended if necessary, but giving a target date is a good goal. With regard to the transition to cleaner fuel, some guidance should be given regarding what this could look like (transition to bio-LPG or RDME?, expansion of the grid to allow electric cooking to be more realistic?). While it is a good overall goal, it it's current form it is vague and hard for project developers and VVB's to determine whether this requirement has been met.	Additional text is included explaining how the transition may be carried out and its main features, including specific timing and steps to facilitate verification that the requirement has been met.
21	BeZero Carbon	In our view, the appropriateness of liquified petroleum gas (LPG) crediting periods should somewhat align with the net-zero pathways for the country in which the LPG carbon project is located. In less	Within the conditions for project devices using LPG, the period has been extended to December 31, 2045.

		economically developed countries, household variables such as income may restrict transition from LPG to electricity. It may take longer than the current 10-11 year period until 2035 (depending on the start date of the project), considering the widespread transition to more efficient biomass stoves is still in progress. In our view, this maximal crediting date could be based on the net-zero target of a country. For example, for a target of net zero emissions by 2050, we could expect a maximum crediting date of 2040-2045 to allow for a solid transition within the country to take place and the potential for affordability of the cleaner technology to increase, but also leave a buffer of 5-10 years in order for the project become more aligned with country net zero. We acknowledge that a transition to cleaner technologies should be a priority, however, the sustainability of projects (e.g. the continued use of LPG and not switching back to polluting fuels) and their ability to penetrate as many end-users as possible needs to be considered.	
22	Modern Energy Cooking Services programme	Looks sensible	Ok. No action needed.
23	Anonymous 5	The methodology mentions allowing Thermal energy devices of the same type using LPG in the project area	The suggested approach does not seem appropriate as it fails to provide any certainty about project's future and

		have a penetration level below 20 percent in the project region and that The project does not issue any carbon credits for periods after 31 December 2035. We would respectfully submit that instead of stopping the crediting period (CP) in 2035, the energy transition for cooking could be assessed after the 1st crediting period which is expected to be completed prior to 2035. If by the end of 1st CP, majority of HHs in the project area have shifted to cleaner and efficient cooking, then the end date of the maximal crediting date can be 31st December 2035, and if majority HHs are yet to transition to clean cooking, then the subsequent CP should be allowed to continue beyond 2035.	crediting ability (after 1st CP). Project investments are not made on uncertain outcomes. No action needed.
24	Anonymous 2	Including a maximal crediting date of 31 December 2035 for LPG project devices is inappropriate and should not be considered. Crediting periods for a recognised project activity type should follow the 7 year, twice renewable structure of the broader program. For projects commencing within the 7 year period prior to this date, this deadline will reduce the carbon revenue from offset sales for the project and may not make the project activity viable well before the maximal crediting date. This may	Please refer to the responses in comments number 20 and 21.

		result in emission reductions not being achieved in the late 2020's or early 2030's as a result of this date and projects may not be implemented despite their still being need for a transition to clean burning stoves during this time. The risk of 'carbon lock-in' for the clean cookstoves project is very minimal risk for this activity type. LPG cookstoves do not require significant infrastructure investment in and of themselves and do not remain in operation for decades. In addition, the fuel demand LPG cookstoves create is not material enough to impact the decision of whether or not to build dedicated LPG infrastructure. Furthermore, in the transition to net zero, emphasis has been placed on the transition away from fossil fuels for energy systems. Thus LPG cookstoves can still be considered in alignment of the net zero future. Requesting a transition plan to cleaner technologies to be prepared by the project developer is inappropriate. The future energy mix of a country is to be determined by the government and for the government to implement. Offset project developers support the implementation of the transition. Thus, LPG cookstoves can only be implemented in regions that have	

		identified LPG as part of its transition energy mix, and is not the responsibility of the developer to plan the transition to a different energy mix on behalf of the region or country. Furthermore, a transition plan to cleaner technology may fall outside the area of expertise of the developer to create especially when considering 10 - 15 years into the future energy mix of the region. Implementation of the transition plan may or may not be within the expertise of the developer, and presumes that an alternate energy supply is available for the region which may not be realised at the time the crediting period experies. There is significant potential for diverse changes in the energy mix and technology supply given evolving regional socio-economic, geopolitical conditions, and technological availability and the eleven-year span writing a transition plan would be additional time and effort on the developer and will not be relevant at point of implementation.	
25	C-Quest Capital	13(c) The date of 31 December 2035 is very optimistic. SSA countries may not be able to match 2050 Net-Zero target date and may need more time considering their current development. LPG penetration in LDC / developing countries is very less. Hence, they may need more	Please refer to the responses in comments number 20 and 21.

		investment on LPG as transitional fuel. As per WRI (https://www.wri.org/insights/carbon-lock-in-definition) the average lifetime of residential cooking system is 14 years hence this will not affect immediate carbon lock-in. LPG penetration will take few more years. Hence, maximum crediting date should be delayed (may be up to 31 December 2040).	
26	BURN Manufacturing	We consider these measures appropriate.	Ok. No action needed.
27	Anonymous 3	• Decision to transition to clean technologies ok, however, the maximum crediting date being 2035 could potentially discourage LPG project developers since that offers a maximum crediting period of about 10 years from now. • Since the net-zero target is 2050, clarify the criteria used to determine the period to 2035? can this be extended to a longer period, set from the date the methodology comes into force?	Within the conditions for project devices using LPG, the period has been extended to December 31, 2045.
28	Columbia University & Ministry of Energy and Petroleum of Ghana	Given the policy changes, market changes and resources required for the transition to electricity and/or ethanol, and their significant variation from country to country, we are uncomfortable with picking a single year as the final crediting date for all locations. With respect to the	Please refer to the response in comment number 20.

		requirement for a transition plan to cleaner technologies, given the policy changes, market changes and resources required for a transition from LPG to electric and/or ethanol stoves, the word “vision” may be more appropriate than “plan”. Especially since the project developer for the next generation of cookstoves after LPG may well be different than the LPG cookstove project developers. For example, in Ghana an eventual transition away from LPG will require large scale investments in the electricity grid and/or ethanol infrastructure. While project proponents can describe what a transition away from LPG would entail, it is not reasonable to expect that they will undertake the large capital investments necessary to implement these infrastructure changes.	
29	TASC	It is not the responsibility of the PD to develop a countries infrastructure. If the country has not developed in such a way to that will allow for cleaner/more efficient cooking methods than LPG, then it will be appropriate. However, this cannot be assumed and in most cases will not be reality. Thus, this should not fall on the shoulders of the project developer.	Please refer to the response in comment number 20.

30	DelAgua	We consider these measures appropriate	Ok. No action needed.
31	University of California, Berkeley	Ideally, we would phase out LPG or phase to bio-LPG by 2035 AND provide universal access to stoves that meet the World Health Organization's standards; however, this is highly unrealistic frankly. Peer-reviewed literature has modeled that LPG used for cooking beyond 2035 provides net climate benefits (Floess et al. 2023). This is therefore not an appropriate maximal crediting date. For improved or clean cookstoves projects that address women cooking over open fires, limiting the scale of LPG is unethical.	Please refer to the response in comment number 21.
32	Koalisation	As per section 2.6 of the VCS Methodology requirementv.4.4, we agree on the importance of a transition from fossil fuel technologies to cleaner cooking methods or renewable biomass fuel, however: there is a huge cultural firewall, which is not easy to overtake, and most of the communities don't have the willingness and the resources to pay for electricity or pellets, this is why we think that the technology switch has to be done in a transitional way, from traditional stoves to ics, to fuel substitution, to solar. Furthermore, carbon lock-in is composed by several elements (economic-technology lock-in, institutional lock-	Please refer to the response in comment number 20.

		in, over-commitment in CO2 lock-in); it would be necessary to identify specific characteristics to evaluate the lock-in; transition plan is not directly related to carbon lock-in.	
33	Anonymous 8	As per the Verra methodology requirement Version 4.4 *"Methodologies shall include an analysis of the risk of carbon lock" & project lifetimes against the risk of entrenching consumer behaviour, business practices, or physical infrastructure that increases or prolongs unabated fossil fuel consumption"*. The utilization of LPG comes with increased impacts on fossil fuel depletion, posing risks for consumers. Therefore, the prudent choice is to integrate carbon lock criteria and establish a project activity deadline within the methodology.	Ok. No action needed.
34	Project Developer Forum	The methodology mentions allowing thermal energy devices of the same type using LPG in the project area have a penetration level below 20 percent in the project region and that The project does not issue any carbon credits for periods after 31 December 2035. We would respectfully submit that instead of stopping the crediting period (CP) in 2035, the energy transition for cooking could be assessed after the 1st crediting	The suggested approach does not seem appropriate as it fails to provide any certainty about project's future and crediting ability (after 1st CP). Project investments are not made on uncertain outcomes. No action needed.

		period which is expected to be completed prior to 2035. If by the end of 1st CP, majority of HHs in the project area have shifted to cleaner and efficient cooking, then the end date of the maximal crediting date can be 31st December 2035, and if majority HHs are yet to transition to clean cooking, then the subsequent CP should be allowed to continue beyond 2035.	
35	Anonymous 7	We support the requirement in line with Section 2.6 of the VCS Methodology Requirements. However, we recommend that Verra include the flexibility to permit a project to continue where it can be shown that adoption of cleaner technologies has not been achieved at sufficient pace. Certain economies may not be in a position to move away from fossil fuel technologies at such a pace, meaning it is possible that continuation of such projects is a benefit over reverting to the baseline scenario. Individual projects operating at the scale of typical voluntary carbon projects are likely not in a position to influence macroeconomic policy and direction and therefore should not be penalized if their economies have not followed an accelerated energy transition pathway.	Please refer to the response in comment number 21.

Q3: What are the benefits and challenges of the proposed method to assess if there is a risk of double counting with REDD+ activities? *(in reference to Section 4, Applicability Condition 18)*

Q3: What are the benefits and challenges of the proposed method to assess if there is a risk of double counting with REDD+ activities? *(in reference to Section 4, Applicability Condition 18)*			
#	**Organization**	**Comment**	**Developer's Response**
36	Resilience Constellation Management Ltd.	The radius of 5km seems arbitrary. Projects that seek to reduce emissions by replacing non-renewable biomass sources are effectively a type of REDD+ project, they should have a geographic boundary and their effectiveness at maintaining or increasing carbon stocks as a result of reduced fuel demand should be monitored at the ecosystem or landscape level.	No action needed.
37	GreenCollar	Benefits: It is good that Verra is recognizing and addressing double counting between REDD and cookstoves. Challenges: There are a number of challenges with the proposed approach: - The approach only requires the risk of double counting be assessed, but it does not state when / how often this assessment is done, or who does the assessment. - The double counting assessment should also include other cookstove projects that may overlap. Also	The requirements (mentioned in the public consultation version of the methodology document) were revised based on the comments received (over two consultations - one specifically for REDD+ double counting requirements) and internal discussions. The simplified requirements are overarching and non-prescriptive in nature and will only require project developers to report possible instances of double counting with REDD+ projects. This will allow Verra to gather and process crucial data on such instances and come up with credible and practicable requirements in the future (through cross-cutting engagement with REDD+ experts).

		overlap between Gold Standard cookstove projects and VCS cookstove projects and even Gold Standard cookstove projects and VCS REDD projects. - REDD projects receive offsets for identified areas of avoided deforestation (and degradation) that are monitored and accounted for, whereas cookstove projects receive credits as a result of an assumption that that they have a positive impact based on a broadly estimated **national-level** fraction of non-renewable biomass (fNRB) and other estimated parameters. The fNRB and other parameters play a critical role and the fNRB number in particular is highly uncertain. As a result cookstove offsets are inherently uncertain - with no understanding at all where the reductions in NRB occur within a country. As a result, wherever overlaps may occur, REDD projects should take precedence in any consideration of allocation of reductions in greenhouse gas emissions as there is higher certainty regarding the physical location of emission reductions from REDD. - Where a cookstove is in an urban or periurban area, then the application of ten hours of road travel will encompass much or even all of many smaller countries. This will exclude future cookstove projects or REDD	

		projects OR will require new projects to take only a proportion of calculated offsets. If our suggested reduction in applicability conditions above is not followed, we would suggest urban and periurban projects should be limited to projects that achieve emission reductions from improved fuels rather than from an impact of reduced consumption of woody biomass from an impossible to identify locale. - How would the proposed approach work with grouped projects (grouped REDD or grouped CS projects)? Should double counting risks be assessed from the entirety of the group area identified in the initial PDD? Or only from identified instances? If from instances then there is a risk that the REDD project will be limited in its expansion by the existence of a cookstove project 2 km or even 10 hours from the area planned to be added. To have a REDD project physically protecting pixels of forest displaced by a cookstoves project which may or may not be having an impact in the identified area seems highly faulty. The existence of a cookstove project may omit the potential for all future REDD projects if VCUs are allocated between project types. In a country with aggressive distribution of stoves it may be impossible to implement	

		any REDD projects (projects that seek to actually work with local communities to protect remaining areas of forests), or at a minimum such projects would be required to take deductions to their emission reductions as a result of possible double counting with the cookstove project that may render the REDD projects non-viable.	
38	BioLite Global	Benefits are minimal, risk is that you increase the complexity (and cost) of implementation and discourage smaller projects and less capitalized market participants.	Noted.
39	Envirofit	While double counting is always a valid concern, more onus should be put on the REDD+ projects to avoid double counting. Cookstove programs a primary reducers of deforestation by reducing fuel usage. These are measured and monitored. REDD+ programs are secondary reducers of deforestation, through protection. The REDD+ programs should bear the burden of having to show that their programs resulted in lack of deforestation, vs, cookstove programs that directly measure impact.	The possibility for REDD+ projects and programs to address double-counting explicitly will be considered by Verra.
40	BeZero Carbon	We find that the benefits of this proposed method may drive more accurate data collection by projects. For example, when distributing	Please refer to the response in comment number 37.

		project stoves, we would expect projects to have a sales record including the locations of where stoves will be used, and possibly a map which displays with the boundary of the REDD+ project and the cookstove project stove distribution in the area. Challenges may exist where project technologies are distributed by third parties and the end user not recorded. Similarly, under scenario b there are still risks that biomass is imported from beyond a 10 hour distance. As such, we would suggest additional surveys of vendors and sellers in the project area to ascertain where fuel is collected from, which would enable the project to provide a more accurate scenario of where end-users acquire their fuel.	
41	Anonymous 5	The effort and intent to remove any possibility of double counting comes across as a step towards right direction. However, while we believe the issue of double counting of credits for possible overlap of ICS and REDD+ projects may exist in some geographies, but it cannot be uniformly assumed across all geographies globally. This is because the cooking practice, and the firewood collection process is largely dependent on existing practice of	Please refer to the answer (Developer's Response) in comment number 37.

		logging and the local/national law. For example in India, logging is not a prevalent practice for firewood collection for cooking purpose, moreover logging is not allowed under Indian laws. Hence, having improved cookstove projects and REDD+ carbon project activities may be seen as independent projects wherein the condition of double counting may not apply. Hence, we would humbly request to have such boundary conditions (5 KM or 10 hours of motorized vehicle travel to identify REDD+ activities) subjectively and only in countries where logging is a prevalent practice with local law permitting the same.	
42	Anonymous 2	* How will it be demonstrated that the wood is coming only from these source? * Not easy to guarantee that 90%	Please refer to the response in comment number 37.
43	C-Quest Capital	Benefits: Issued credits will be real and transparent with no risk of double counting. Challenges: Difficult to identify if any REDD+ projects are active in the specified 5km radius from the location of the thermal energy generation units. (Relevant issues have been highlighted in the "General Comments Sheet")	Identification could be carried out through reviewing standard registries. No action needed.

44	BURN Manufacturing	Please provide guidelines for a scenario where a new REDD project is established adjacent to an existing cookstove project.	Please refer to the response in comment number 37.
45	Anonymous 3	• Hard to determine source of charcoal/ firewood considering that some end-users might be getting the fuel from 3rd parties. if an existing REDD+ project has been around, do you assume the charcoal in the baseline is sustainably harvested if there is a REDD+ project 10 hrs away? Do these applicability criterion basically make it more favourable to do LPG or electric cooking and therefore exclude a big population that don't have access to this infrastructure? There are cases where both projects can exist but are not related, e.g. where communities gather firewood from other areas that are not under REDD+, in such cases, ERs should be calculated individually from each project without the issue of double counting. Source of fuel can be checked through baseline surveys.	Please refer to the response in comments number 37 and 42.
46	Anonymous 1	How is it determined whether the existing REDD+ programme has impact on the Cooking practices in the region? Also a REDD+ programme in the region could be focused on mitigating other drivers of deforestation/degradation such as timber extraction or clearance for	Please refer to the response in comments number 37, 42 and 44.

		agriculture or grazing etc and might not have impact on the ICS project. There is no clarity if only REDD+ projects operational at time of start of project activity should be assessed. What if a REDD+ programme is introduced at any given point of time once the ICS project is operational: does the methodology require double counting to be assessed for future monitoring periods? This could introduce lot of uncertainty for project developers and investors.	
47	TASC	How can anyone prove that wood/charcoal is being harvested from a specific REDD project. If a charcoal project is situated within a REDD+ area, it will be near impossible to decern if the charcoal is sourced from within the REDD+ area or outside. It is common that charcoal is produced elsewhere and then transported over great distances to where it is finally consumed, wood fuel, especially within the urban context has similar issues. How will the PD have to account for this? It is a near impossible task.	Please refer to the response in comments number 37, 42 and 44.
48	DelAgua	Please provide guidelines for a scenario where a new REDD project is established adjacent to an existing cookstove project. If the REDD project was after Project validation how does this impact? Is there scope for the PP to assess whether the	Please refer to the response in comment number 44.

		REDD project is stopping wood being harvested.	
49	Eni S.p.A.	We see the possibility of double counting with REDD+ projects, but applying a pure geometric constraint could not be the optimal solution (i.e. woody biomass can be sourced from other areas even if the cookstoves are distributed at less than 10-hours distance from REDD+ project). A proper way to track the wood's source and assess whether it belongs to a REDD+ project area or not should be evaluated and applied.	Please refer to the response in comment number 42.
50	University of California, Berkeley	It is important to avoid double counting of emissions reductions from over-lapping projects by reducing the number of credits generated by the REDD+ project or the cookstoves project equal to the credits generated by reducing CO2 emissions from non-renewable biomass from the cookstoves project. It appears that this is what the methodology as proposed will do. We think that this overall approach makes sense and could work. A key challenge is identifying when reductions claimed by projects overlap. Cookstoves projects often claim to cover the whole country. We recommend requiring cookstoves project developers to provide granular data on where stoves are located to	Please refer to the response in comment number 37.

		facilitate identifying double counting, and also for greater transparency.	
51	Koalisation	We just see benefits for REDD+ project proponents. On the other hand this change on the methodology might affect many cookstove projects developer that could decide to stop their activities with a huge negative impact on the communities. With the high growth of rate of the population and the lack of access to clean energy, the demand for charcoal will keep on raising year after year. AS REDD+ projects are willing to cut down the production of charcoal, cookstoves projects are willing to cut down the demand side. Cookstove's projects have direct social, environmental, and economic benefits for the most vulnerable communities. However, the proposed changes could potentially harm these communities and benefit organizations that have previously shown non-compliance with rules and methodologies. Cookstoves projects are crucial in reducing carbon emissions, easing health and economic burdens, and promoting financial security and female empowerment. Any alterations that do not consider these benefits could lead to detrimental effects on the communities that rely on them.	Please refer to the response in comment number 37.

52	Anonymous 8	Benefits of REDD+ for No Double Counting: Enhanced Forest Policies, Adaptation and Risk Minimization, Improved Forest Quantity and Quality, Community Involvement (a sense of ownership), more Carbon Sequestration, and biodiversity Conservation. Challenges in Implementing No Double Counting in REDD+: Measurement Systems and Tools, Historical Data Accuracy, Natural Disturbances, Data Sharing and Transparency.	Please refer to the response in comment number 37.
53	AGS Carbon Advisory	Benefits: It will act as a cross-check mechanism for both the projects types Challenges: It may be difficult to establish and validate the supply chain for cases where the firewood or charcoal is being purchased.	Please refer to the response in comment number 42.
54	Project Developer Forum	The effort and intent to remove any possibility of double counting is a step in the right direction. However, while we believe the issue of double counting of credits for possible overlap of ICS and REDD+ projects may exist in some geographies, it cannot be uniformly assumed across all geographies globally. This is because the cooking practice, and the firewood collection process is largely dependent on existing practice of logging and the local/national law.	Please refer to the response in comments number 37, 42 and 44.

		For example in India, logging is not a prevalent practice for firewood collection for cooking purpose, moreover logging is not allowed under Indian laws. Hence, having improved cookstove projects and REDD+ carbon project activities may be seen as independent projects wherein the condition of double counting may not apply. Hence, we would humbly request to have such boundary conditions (5 KM or 10 hours of motorized vehicle travel to identify REDD+ activities) subjectively and only in countries where logging is a prevalent practice with local law permitting the same. Please provide guidelines for a scenario where a new REDD project is established adjacent to an existing cookstove project. If the REDD project was after Project validation how does this impact? Is there scope for the PP to assess whether the REDD project is stopping wood being harvested.	
55	TotalEnergies Carbon Solutions	It should also provide guidelines for a scenario where a new REDD project is established whereas an existing cookstove project is already in place.	Please refer to the response in comment number 44.
56	Anonymous 7	The benefit of including such a requirement is of course that it will intend to avoid a scenario where reduced deforestation achieved by an	Please refer to the response in comment number 37.

		overlapping REDD project is not double counted with the reduction in fuel wood demand achieved by an energy efficiency project. The challenge of course is determining (i) whether the reduced deforestation achieved by the REDD project is indeed impacting the same carbon stocks that are being impacted by the energy efficiency project (e.g., an APD project addressing a particular forest type may not impact deforestation rates of another forest type that is being impacted by the energy efficiency project, and vice versa) and (ii) how to allocate emission reductions to the overlapping activities. We strongly advise that Verra must conduct a further stakeholder consultation on its proposal for addressing this issue as it is very complex and potentially very impactful to projects' MRV processes.	
57	Aera Group	We fear excessive additional costs & efforts for project developers to trace and document the cooking fuels geographical origins may deter most new carbon projects Emission Reductions certifications.	Please refer to the response in comment number 42.

Q4: Are the distances and travel times prescribed for different project circumstances appropriate and reasonable to assess the risk of double counting with REDD+ activities? *(in reference to Section 4, Applicability Condition 18)*

Q4: Are the distances and travel times prescribed for different project circumstances appropriate and reasonable to assess the risk of double counting with REDD+ activities? *(in reference to Section 4, Applicability Condition 18)*			
#	**Organization**	**Comment**	**Developer's Response**
58	Verra	Par 18 (b), the 10 hours of motorized transport can cover the entire country and for local transport vehicles, that is a distance of more than 300-400km. That distance can bring into coverage any REDD+ project within range in most countries. How will the PP deal with that?	That is the intention. No action needed.
59	GreenCollar	The distances and travel times seem reasonable for identified projects areas, but we note that this is a different approach to the risk mapping under VM0048 that identifies areas under threat from deforestation. Drawing a 5 km or 10 hr boundary around a CS project does not provide any insight into where the NRB is being sourced from in the CS baseline, or where CS driven reductions in NRB use will occur over time. The amount of overlap with any REDD project is unknowable based on the current CS methodology and any attempted allocation under the	Please refer to the response in comment number 37.

		current CS methodology would be guesswork. To fix this fNRB analysis would need to be spatially explicit - similar to some of the WISDOM analysis - but this would only be a partial solution as CS projects would still need to identify which areas are impacted by their activities. As noted above we are also concerned what will be the implication for grouped REDD projects (and for REDD projects not yet registered). Will this process create an inadvertent land rush with REDD projects and cookstove projects rushing to claim as much area as they can to retain their future offset potential? This will need to be addressed in the allocation procedures in a way that won't create perverse incentives and won't potentially penalize future REDD projects. This will be most extreme for projects in urban and periurban areas where the impact region will be tens of thousands of square kilometers.	
60	Envirofit	Methodology should allow for justification of by project fuel source boundary based on local fuel supply chain realities.	Please refer to the response in comment number 37.
61	BeZero Carbon	For 18(a), we find that 5km is likely to be a suitable range for rural households. However, in our view, it is important that this is depicted in project documents, for example using	Requirement to include a map added.

		a map, which shows the locality of the nearest forested areas and the boundaries of the REDD+ project. In a case where the REDD+ boundary is the closest forested area to an end-user, it could be perceived that this is where fuel is sourced, and as such, double counting could exist. For 18(b), we agree that a 10 hour travel time to a REDD+ boundary is likely to be a reasonable timeframe. However, we would also expect this to be depicted in project documents, stating the techniques used which explain the distance to the REDD+ boundary.	
62	Anonymous 5	(Same answer as above)	Please refer to the response in comment number 60.
63	Anonymous 2	The radius of 5km may be to low (2.5 km is a half hour walk approximately) in some regions are registered 2 hours walk to get the wood.	Please refer to the response in comment number 37. No action needed.
64	C-Quest Capital	For the urban or peri-urban population, the distance and travel times seem fine. But, for the rural population as per accessibility and availability of fuelwood, the household member(s) may travel greater than 5 km for collection of fuel as per cooking requirements.	Please refer to the response in comment number 63.
65	BURN Manufacturing	Methodology needs to account for national contexts that may disrupt movement of charcoal across long distances	Please refer to the response in comment number 60.

66	Anonymous 3	• Distances are too long, 10 hours drive is equivalent to about 500kms distance. 10 10-hour drive seems a lot as it is unlikely that stakeholders using motorized vehicles would travel that far just to gather fuelwood/charcoal. 5 km from the location of the units seems reasonable for rural areas, but we would not support that all emission reductions have a double-counting issue, as explained above. This makes it a challenge to implement cookstoves projects within that radius. Existence of REDD+ programs a few hundred kilometres away shouldn't be an undue burden for charcoal and firewood projects.	Please refer to the response in comment number 37.
67	TASC	Methodology needs to account for national contexts that may disrupt movement of charcoal across long distances	Please refer to the response in comment number 60.
68	DelAgua	Methodology needs to account for national contexts that may disrupt movement of charcoal across long distances	Please refer to the response in comment number 60.
69	Eni S.p.A.	A proper way to track the wood's source and assess whether it belongs to a REDD+ project area or not should be evaluated and applied. Applying a fixed distance could not be the most suitable option to represent the effective condition on site.	Please refer to the response in comment number 59.

70	University of California, Berkeley	The 5km for firewood collection is reasonable. For projects that reduce the use of charcoal, since charcoal is often a national and even cross national business, the larger boundary described in section 18b of the proposed methodology should be used instead of 5km.	Please refer to the response in comment number 37.
71	Koalisation	The distances and travel times prescribed on condition 18 of the section. 4 are extremely inappropriate. If every cookstove project would be double counted if developed within 10 hours away from a REDD+, it means that most of the projects wouldn't be eligible. Charcoal is transported to big cities due to the lack of proximity to forests. It is absolutely not applicable to all areas and should be determined by the baseline and by the presence or not of forest in the nearby area. In Zambia, in the area in which we operate, hundreds of people come back from the forest with bicycles loaded with 1 to 200 hundred kgs of charcoal every day, it is not transported with big tracks hours away from the compounds. If double-counting is something relevant to address the risk of over-crediting of projects, the imposed boundaries do not look like to be a real solution and can block several projects with positive social impacts.	Noted.

		We suggest improving the metric as "10-hour distance" is not acceptable.	
72	Anonymous 8	The appropriateness and reasonability of distances and travel times prescribed for different project circumstances in assessing the risk of double counting with REDD+ activities depend on various factors. Here are considerations: The geographical context of the project area should be tailored to the specifics of each country. Distances and travel times will be contingent upon the project scale, taking into consideration the intricacies of the ecosystem, land-use patterns, and the potential for double counting. Additionally, periodic reviews during the crediting period are essential to ensure ongoing relevance and effectiveness.	Please refer to the response in comment number 60.
73	Project Developer Forum	Methodology needs to account for national contexts that may disrupt movement of charcoal across long distances	Please refer to the response in comment number 60.
74	EcoSafi	Charcoal is often a regional and even transnational product, and should be treated accordingly.	Please refer to the response in comment number 60.
75	Anonymous 7	We have no comment.	NA
76	Aera Group	It would be better to understand the rational behind the value of 5km. How this value is derived? Noting that it can be really challenging for project	Please refer to the responses in comments number 59 and 61.

		developers to ensure that a project is distance from 5 km? What happen in a case of a biomass stove project and a REDD+ project are being listed on same time by 2 different project developers? How can one knows that an other project will take place? What if a project take place less than 5 km but project proponent can ensure that users are not supplied by REDD areas? A clear map and insights of REDD project location (ongoing and expected) should be provided by the standard to help project developer better designing their projects	

Q5: How do you think emission reductions associated with overlapping areas of REDD+ and cookstove projects should be allocated to each project type? Please provide the rationale. *(in reference to Section 4, Applicability Condition 18)*

Q5: How do you think emission reductions associated with overlapping areas of REDD+ and cookstove projects should be allocated to each project type? Please provide the rationale. *(in reference to Section 4, Applicability Condition 18)*			
#	**Organization**	**Comment**	**Developer's Response**
77	Resilience Constellation Management Ltd.	Projects need to address this between themselves. Ideally they should collaborate at an operational level to reverse declines in terrestrial carbon stocks through a combination of improved land management and	Noted.

		reduced / managed offtake of resources. The overall impact should be measured at the landscape or ecosystem level than via the number of cookstoves adopted. If there is no reversal of carbon stock declines then it is difficult to assert a positive outcome.	
78	GreenCollar	We have attempted to work out how to do an allocation and have identified numerous issues with CS projects that rely on fNRB in their baseline: - How to prioritize allocation between overlapping claims - e.g. if a REDD project is first to register, does that prevent a CS project from subsequently claiming credits where there is overlapping double counting (or vice versa), or does the later project only receive a reduced allocation? The risk of a later CS project claiming a potentially significant portion of an already registered REDD project's credits (or vice versa) creates a significant risk to the first project and its ongoing viability. - How to deal with an increase in deforestation or forest degradation c.f. the baseline for a REDD project/jurisdictional program that has an overlapping CS project. Should that CS project receive any credits associated with an increase in forest loss in a REDD project or jurisdiction?	Noted.

		If the REDD baseline is assumed to be accurate, then arguably the CS project should also not receive credits. - How to deal with different verification and issuance periods between overlapping REDD and CS projects / programs. - Current approaches to estimate fNRB do not differentiate between unsustainable collection of fuelwood that causes degradation vs deforestation, or how the two may interact. E.g. charcoal production as an initial driver of forest degradation and possibly deforestation, which then leads to other actors or activities that produce a change in land use. As a result it is impossible to assess double counting between CS and RED or REDD. - How to deal with baseline allocation in REDD projects under the new VM0048 where this overlaps with CS projects (noting that it is arguably impossible to determine a correct overlap in the first place). - How to differentiate between double counting from a CS project in a REDD project's leakage belt and project area - i.e. VCUs generated by a CS project in a leakage belt should in theory be added to leakage belt emission estimates, and VCUs generated in a REDD project area should be deducted from the REDD	

		project's VCUs. - How to deal with the lack of accounting for non-permanence / reversals in CS projects that overlap with REDD - i.e. REDD projects will have an ongoing obligation and liability to ensure C stocks remain protected whereas CS projects do not. If CS projects are allocated a portion of VCUs associated with reduced emissions within a REDD project, the ongoing obligation to protect these stocks only rests with the REDD project. Verra would need to work out how to deal with an observed reversal in forests that have VCUs from CS projects. - How a successful REDD project affects the fNRB value of a cookstove project. E.g. if a REDD project is successfully protecting a forest from deforestation, fuel wood collection pressure may shift elsewhere - or alternatively some REDD projects also incorporate wood lots to provide sustainable fuel wood to local communities. How a successful REDD project affects the fNRB of an adjacent CS project is unknown - and likely exceedingly difficult to estimate. We are also aware of REDD projects planning to implement CS projects as part of their project strategy (without claiming VCUs from these projects). - How to reconcile CS accounting that is not spatially explicit (i.e. there is no	

		effort to track where reductions in NRB occur across a landscape) with REDD accounting which is spatially explicit - especially with the new approach in VM0048 that includes risk mapping and identification of forests at risk of deforestation. Drawing a 5 km or 10 hr boundary around a CS project with a national fNRB number does not provide any insight into where the NRB is being sourced from in the CS baseline, or where CS driven reductions in NRB use will occur over time, or whether the reductions are reductions in forest degradation or reductions associated with reduced deforestation. The amount of overlap with any REDD project is unknowable based on the current CS methodology, and any attempted allocation under the current methodology would be guesswork. We think the current cookstove approach to estimate VCUs and REDD+ GHG accounting are incompatible, that the current approach to estimate VCUs for CS that rely on fNRB is fatally flawed and inconsistent with how VCUs are accounted for in AFOLU projects, and it is not possible to develop a suitable method to allocate VCUs between the two approaches. We suggest the following approach should be	

		considered: - CS projects that rely on fNRB to estimate VCUs should be treated as AFOLU projects rather than energy projects and have the same baseline and MRV obligations as a REDD project. Deforestation should follow the national allocation as under VM0048 allowing these project to align and nest. This will close the current accounting loophole in CS projects that do not have any obligation to monitor impacts on the underlying carbon stocks they purport to protect. - Verra should stop allowing any new "AFOLU" CS projects (or new instances of existing grouped projects) and existing "AFOLU" CS projects should be given a reasonable amount of time to transition to VM0048 - e.g. 24 months. - Once fNRB CS projects are treated as a type of REDD project, they would be required to establish project boundaries and the same double counting requirements as other REDD projects will apply, which removes the need for an allocation between overlapping CS and REDD projects. - A new "CS module" or similar is not necessary under VM0048 - project proponents that want to reduce NRB using CS are able to develop a REDD	

		project and implement a CS program as part of the activities carried out by that project to reduce deforestation.	
79	BioLite Global	The risk of this is over-rated, and it's also virtually impossible to implement without significantly hindering or under-crediting a cookstove project. We discourage including requirements for this since the impact is minimal.	Noted.
80	Envirofit	As with question 3, cookstoves are primary reducers of deforestation. Therefore those measured reductions should be considered first and REDD+ programs should need to prove that they are not double counting cookstoves reductions.	Noted.
81	BeZero Carbon	Deforestation can be driven by various agents, depending on the location of the REDD+ project. It could be difficult to assess if deforestation in a REDD+ boundary was due to biomass being sourced as fuel for cookstoves, unless on the ground monitoring exists. Furthermore, it also depends on the extent to which the REDD+ project has been effective in preventing deforestation. To be conservative in the case of a cookstove project, we would suggest that any emission reductions associated with overlapping areas of REDD+ projects should be attributed to the REDD+	Noted.

		project, and not the cookstove project.	
82	Anonymous 5	When there are overlapping areas of REDD+ and cookstove projects, in the absence of clarity on which project has been registered earlier, we recommend the cookstove credits for the overlapped area may be shared equally with the REDD+ project proponents.	Noted.
83	Anonymous 2	Integrating a geolocation-based technology component can define project boundaries, preventing double counting and facilitating accurate allocation of emission reductions. However, consider allocation does not need to occur. Harvesting biomass for cookstoves can occur regardless and in addition or despite of forest conservation activities, especially at low collection rates. Consider if these two activities are stacked together? Is there opportunity for the cookstoves model to provide more accurate information for avoided deforestation due to monitoring at the demand side? Allowing for options for allocation at a project specific level should be considered. Allocation can be assessed on a project specific basis if agreements are in place between developers, consider materiality of the cookstoves avoided biomass	Noted.

		component to the overarching REDD++ project if it materially changes the assertion or is included with the uncertainty range of the model, or exclusion of the avoided biomass component to the project type.	
84	C-Quest Capital	Verra should provide an example for a sample case to understand the REDD+ implication and associated points as per points 3 to 5.	Noted.
85	BURN Manufacturing	Please clarify how these requirements will work with jurisdictional REDD+ programmes.	Noted.
86	Anonymous 3	• There would be a need of conducting another analysis to determine if the deforestation counterfactual of REDD+ projects is related to illegal logging and fuelwood consumption by the same communities involved in the cookstoves project. Additionally, some questions would be included in the cookstoves baseline survey to gather information about where the wood is being harvested or gathered. This will help establish if the wood is coming from forest or non-forest land. • If no relationship is found between both types of projects (no deforestation agents link and gathering on non-forest land), then both projects should have their own	Noted.

		100% allocation of emissions reductions. • Determining the fraction of non-renewable biomass in that specific region to claim ERs. FNRB applied for such cases should not be country specific but rather region specific with regards to the project boundary.	
87	TASC	Whichever project was first should have right of way.	Noted.
88	DelAgua	Please clarify how these requirements will work with jurisdictional REDD+ programmes. This is the first time this has been in the methodology and as such we would require more time to review and revert in detail with rationale.	Noted.
89	University of California, Berkeley	They should be allocated to cookstove projects. The reason is that the effects of a cookstove project is more granularly and specifically calculated. REDD+ projects measure changes in rates of deforestation and degradation in total. If there is a cookstoves project in the same region, a portion of those benefits can be attributed specifically to the cookstoves project, and the rest can be claimed by the REDD+ project.	Noted.
90	Clean Air Trade, Inc.	The cookstove projects should NOT be allowed to overlap areas of REDD+ projects, because it is too complex to allocate emission reductions between these two types	Noted.

		of projects. There is virtually no way that can justify such allocation scientifically. As result, the overlapping will lead to the emissions reductions of both types being subject to criticism and this will further damage the reputation of both project type, which are already casualties of negative media coverage.	
91	Koalisation	We think that the project boundary needs to be revised. In the broader context of VCM, the double-counting risk should be assessed in Forestry projects' methodologies, modifying the baseline when there is a local community accessible in 10 hours or less of travel in motorized vehicles (maybe translated in a radius kms), and not in community-based projects. Furthermore, an improved monitoring methodology should prevent the over-crediting in a better way. A paired KPT (Kitchen performance test) in situ is a particularly rigorous method of quantifying a stove's biomass savings in the baseline scenario and in subsequent monitoring periods.	Noted.
92	Anonymous 8	The allocation should be determined based on a comprehensive assessment of the specific contributions of each project type within the overlapping areas. This involves evaluating the unique impact of REDD+ initiatives in preserving and enhancing forest carbon stocks	Noted.

		and the distinct benefits of cookstove projects in reducing emissions from household energy use. Rationale: 1. Project-Specific Contributions 2.Additionality and Permanence: The degree of additionality and permanence achieved by each project type in the overlapping areas should be considered.	
93	Project Developer Forum	Please clarify how these requirements will work with jurisdictional REDD+ programmes. This is the first time this has been in the methodology and as such we would require more time to review and revert in detail with rationale	Noted.
94	TotalEnergies Carbon Solutions	How those regulations/ specifications will be done with REDD+, please clarify.	Noted.
95	EcoSafi	Given the much lower bar to prove beneficial impact, they should be allocated to the cookstove projects.	Noted.
96	Anonymous 7	We suggest that a quantitative assessment must be undertaken to determine the proportional impact of the different project activities and allocate the emission reductions associated with those accordingly. We believe it would be too simplistic, for instance, to assign an automatic 50/50 spilt (or similar) since different project activities will undoubtedly have greater/lesser impacts than	Noted.

		others. Additionally, if a default allocation was assigned, it could unfairly penalize existing projects which are 'encroached upon' by other projects. Finally, we caution that Verra must be very explicit about the processes which must be followed by projects which may overlap with others (e.g., mandatory communication between projects, pre-assessment of projects in the same proximity, Verra's processes for allocating emission reductions between projects). Again, we reiterate the importance of Verra hosting another stakeholder consultation process on its proposal for addressing this issue, even if it were an isolated consultation only on this issue.	
97	Aera Group	We believe it will be tremendously difficult to establish fair, unbiased procedures and requirements for allocation of emission reductions to the REDD+ and cookstove projects..	Noted.

Q6: Are the emission sources included in the project boundary and GHG quantifications complete and clearly described? *(in reference to Section 5, Project Boundary)*

Q6: Are the emission sources included in the project boundary and GHG quantifications complete and clearly described? *(in reference to Section 5, Project Boundary)*			
#	**Organization**	**Comment**	**Developer's Response**
98	Resilience Constellation Management Ltd.	For projects replacing unsustainable biomass use with sustainable biomass use	Already covered. No action needed.
99	Envirofit	Yes	Ok. No action needed.
100	BeZero Carbon	We find that the emission sources included in the project boundary which are proposed in the methodology are clearly described. In our view, the project proponent should explain how significant each GHG source is for the project. However, we find that one the upstream emission sources are missing from the methodology. For example, proponents are not required to include the emissions associated with the development and manufacture of the project stoves. The inclusion of this would provide more accurate carbon accounting.	Including the suggested upstream source would be a step too far and hard to determine/monitor. No action needed.
101	Modern Energy Cooking Services programme	As per detailed comments, I think the non-CO2 emissions should be included for electricity	By using the new Verra tool, equivalent emissions are quantified that include non-CO2

102	Anonymous 5	Based on the information provided in the draft methodology about the project boundary, it appears that the emission sources included in the project boundary and GHG quantifications are complete and clearly described since it can assumed that the non renewable biomass has been procured from REDD project areas.	Ok. No action needed.
103	Anonymous 2	Yes, no comments	Ok. No action needed.
104	C-Quest Capital	The provided information with respect to the project boundary is clear.	Ok. No action needed.
105	BURN Manufacturing	Whereas, Table 1, page 9, does provide for charcoal production emissions, the non-CO2 emission factor default provided, does not. The default emissions factors need to allow developers to incorporate charcoal production emissions to avoid significant under crediting risks. The same holds true for the wood to charcoal conversion factor. The methodology provides no guidance on whether or not, an applicable conversion factor can be applied in the computation of emissions reductions from charcoal based ICS projects.	Emissions from charcoal production are included in the methodology.
106	Anonymous 3	• Yes, relevant sources have been included.	Ok. No action needed.

107	Tecteg Mfr.	Not Sure but we believe a qualifying stove should be tested to Teir 4 ro 5 status as per world bank requirements. Anything less should not be qualified. Also we think a true monitoring system must be deployed as we have done in Colombia.	Minimum requirements have been included for the different types of stoves, providing flexibility for a wide variety of project configurations and locations.
108	TASC	Based on the information provided in the draft methodology about the project boundary, it appears that the emission sources included in the project boundary and GHG quantifications are complete and clearly described.	Ok. No action needed.
109	DelAgua	We consider these complete and clearly described	Ok. No action needed.
110	Eni S.p.A.	See answer to question 1	
111	Koalisation	Yes	Ok. No action needed.
112	Anonymous 8	Yes, it encompasses all scenarios.	Ok. No action needed.
113	Project Developer Forum	Whereas, Table 1, page 9, does provide for charcoal production emissions, the non-CO2 emission factor default provided, does not. The default emissions factors need to allow developers to incorporate charcoal production emissions to avoid significant under crediting risks. The same holds true for the wood to charcoal conversion factor. The methodology provides no guidance on whether or not, an applicable conversion factor can be applied in the computation of emissions	Please refer to the response in comment number 105

		reductions from charcoal based ICS projects. To be noted that the specific sourcing area might not be known, for example in case of charcoal, which makes it challenging to evaluate related transportation and production emissions. For example in case where baseline use of non-renewable biomass is replaced with the used of bioethanol, it might be difficult to have enough information on the baseline related transportation and production emissions.	
114	TotalEnergies Carbon Solutions	The methodology should take into account the emission factor for the wood to charcoal conversion factors. This element is key for actors as charcoal can travel.	Please refer to the response in comment number 105
115	Anonymous 7	Yes.	Ok. No action needed.

Q7: Measurement and Monitoring Approach: The methodology prescribes the use of direct measurement approaches (including metering/remote monitoring) to ascertain the values of various baseline and project parameters. Does the methodology provide sufficient guidance for project proponents and VVBs for the use and verification of such measurements? If not, what further guidance could be provided and for which parameters?

Q7: Measurement and Monitoring Approach: The methodology prescribes the use of direct measurement approaches (including metering/remote monitoring) to ascertain the values of various baseline and project parameters. Does the methodology provide sufficient guidance for project proponents and VVBs for the use and verification of such measurements? If not, what further guidance could be provided and for which parameters?			
#	Organization	Comment	Developer's Response
116	Verra	**Description of the monitoring Plan** Data recording: it is stated, "Technologies that have aged beyond their useful lifetime, as established in the usage survey, are removed from the project and are no longer credited". The meth should be clear on how lifetime of the project devices is determined and enforced. Surveys should not be used to determine the lifetime, instead, the life of the device should be fixed in the design document based on manufacturer specs or design specifications. If we allow PP to carry out surveys, they will extend their life to earn more credits. Note: measures must be put in place to prevent PPs from exaggerating the	The aim is to avoid project stoves that are in poor condition. The methodology has been adjusted and should capture whether project stoves are used, or not, and how efficiently they are operating. Also, stoves must meet durability requirements. The restriction to a fixed lifetime may be eliminated as it originated from when stove reductions estimations were based heavily on assumptions and not on measurements and sensors, as is the case in this methodology.

		stove's life by having long extended life. The meth should have a requirement for VVB to check and provide their remarks at each site visit verification to check on the physical quality of stove devices and compare with their stated age in years and provide an opinion of the lifetime chosen corresponds with their physical checks.	
117	Resilience Constellation Management Ltd.	For projects where the default (baseline) fuel is biomass, a survey is required to determine the extent to which continued usage of biomass in the baseline case will contribute to the depletion of terrestrial carbon stocks. This requires sampling of the biomass source areas to understand whether there is a decline in biomass over time. This could be done in several different ways (further discussion required).	Improved methods to determine fNRB are under ongoing discussion under the UNFCCC CDM are applied under this methodology.
118	GreenCollar	If Verra decides to continue to allow the fNRB loophole, any use of fNRB should require a spatially explicit assessment of fNRB and project boundary that encompasses forests that are being unsustainably used for fuel wood. Project proponents should be required to monitor these forests over time to demonstrate a positive climate impact and ensure permanent reductions.	Please refer to the response in comment number 117.

119	Envirofit	While direct measurements are a good idea and should be adopted, the entire process of how to do this is fairly new and rapidly evolving. Flexibility should be included to allow for evolving technologies and analysis of data, that will undoubtedly improve rapidly over the coming years.	Ok. No action needed.
120	BeZero Carbon	We find that for using SUMs, the methodology may be lacking some clarity. For example, the methodology does not dictate the quality of the SUMs, and what metrics qualify for this quality. In addition, there is no guidance on whether the project should be conduct tests on SUMs to ensure their quality remains throughout their usage. We would suggest that evidence of calibration and verification is available in project documents. In addition, we suggest that if a project were to use alternative literature or third party assessments to justify the higher project energy use, then this should be based on evidence which does not precede the project start date by 3-5 years, for example. We are of the opinion that sampling should be adjusted to improve the accuracy of monitoring, otherwise using more technological forms of monitoring (SUMs and metering) may still suffer from previous limitation. We find that	Specific guidance on the direct monitoring/measurement techniques is provided with respect to the equipment requirements (e.g., quality, lifespan, calibration or certification evidence, etc.). Also, more instruction is provided directly in the methodology about sampling requirements, statistical methods and uncertainty calculations. The methodology incorporates some flexibility for the measurement devices used when applying the KPT to enable use of newer, digital measuring tools including those that can be left in the home.

		sample sizes can be very small (<0.1% in some cases), and there is little stratification of the population, with projects assuming homogenous end user demographics. We would suggest that projects should identify sampling frames (different location, income, education etc), and apply appropriate sample sizes to each for use of SUM. We find that this approach, used in conjunction with SUMs and metering (see comments below), is likely to heed more accurate results, due to the greater sampling sizes, frames, and technology.	
121	Modern Energy Cooking Services programme	Overall, yes. But some specific comments in other tab	OK. Refer to the other tab.
122	Anonymous 5	Based on the information provided in the draft methodology about the direct measurement approach (including metering/remote monitoring) to ascertain the values of various baseline and project parameters are sufficient enough for the use and verification of such measurements by the project proponents and VVBs.	OK. No action needed.
123	Anonymous 2	Yes, no comments	Ok. No action needed.
124	C-Quest Capital	The inclusion with respect to the use of direct measurement approaches (including metering/remote monitoring) in the proposed methodology is an initiative to DMRV.	OK. Refer to the other section.

		However, the feedback on such measurements and monitoring approaches have been provided in points 8 and 9 below for consideration.	
125	BURN Manufacturing	While direct measurement of electric devices should be encouraged, the methodology references direct measurement of biomass stoves, without explanation of what this would entail. Further guidance is required to help VVBs audit direct measurements Please link all the referenced documents in the published version	Please refer to the response in comment number 120.
126	Anonymous 3	• Both project proponents and the VVBs should be provided with guidelines on how to ascertain and ensure the equipment being used is giving accurate measurements (either providing calibration certificates, 3rd party endorsements for the equipment, beyond the manufacturer specifications and independent testing from 3rd parties). • Parameter ηold,i,j (Fraction) and ηnew,i,j,y (fraction) - there are various options provided as the source of data (water boiling tests, manufacturers values, host country standards and approved values by CDM too 33). Based on this, one can go for the most aggressive value,	1. Please refer to the response in comment number 120. 2. The calculation method relying on stove efficiencies was removed to avoid unconservative results so comments no longer apply.

		need to provide maximum CAP and need to provide evidence. • Parameter Hhi,j (Equivalent standard male adults)- other sources of data can be included like literature review e.g. census for countries.	
127	Anonymous 1	VERRA should provide Usage Rate Guidelines similar to GS. The PD will have the option to conservatively assess the CS usage rate in the project activity or use SUMs to enhance the accuracy of monitoring data.	Noted.
128	TASC	Sufficient guidance is not provided on the direct/remote monitoring of project devices. More explanation around sample sizes, sensor/monitoring timelines and how the VVBs are to check sensors and data needs to be provided.	Please refer to the response in comment number 120.
129	DelAgua	No - significantly more guidance is required. We are all for using stove use monitors but there needs to be some methodology guidance about how this actually relates to wood usage and stove usage. In addition, it is not clear what sample is required and additional guidance would be welcome. We would be keen to understand how many stove monitors for the total population would be required (a calculation would be valuable) and how this data is actually meant to be	Please refer to the response in comment number 120.

		used to support stove usage calculations.	
130	Eni S.p.A.	For calculation of parameter ηold,i,j (section 9.1, page 26) option 1 Water Boiling Tests it is not clear which is the minimum number of tests to be carried out and the testing conditions (i.e. to be performed in certified labs or on field?) in case of three stone fire or rudimental baseline devices. Not clear what is included in "Option 3: Direct measurement" for BCp,y,i,j calculation (section 9.2, page 31-32) and for which kind of devices this option is applicable.	Water boiling test option has been excluded. Either KPT vs. KPT measurements or KPT versus direct measurement of stove energy are the available methods now. Further explanation is included on what "direct measurement" entails, for which types of project energy use and statistical requirements on these measurements.
131	Koalisation	Yes	OK. No action needed.
132	Anonymous 8	Further guidance is required for remote sensor measurements, safety criteria for household equipment, IoT system criteria, metering monitoring criteria, and the formulation of a monitoring plan. Additionally, enhancements are needed in areas such as data validation and quality assurance, training and capacity building, as well as documentation requirements.	The expanded requirements seek to address each of these topics, except IoT system criteria are not be addressed and considered out of scope of the current methodology.
133	AGS Carbon Advisory	On the direct measurement for renewable/non-renewable biomass, there should be an option added on fuel purchase monitoring especially for projects where briquettes will be used as a fuel in project scenario.	Please refer to the response in comment number 120.

134	Project Developer Forum	While direct measurement of electric devices should be encouraged, the methodology references direct measurement of biomass stoves, without explanation of what this would entail. We need more clarity/guidance on how the direct measurement of fuel consumption can be done in practice in case of "Renewable or Non-renewable Biomass" referred in page 18 of the methodology. Also, we need further guidance regarding different technologies, e.g. in case of bioethanol stoves which options can be applied for monitoring (similar as for LPG stoves?) Further guidance is required to help VVBs audit direct measurements There needs to be some methodology guidance about how this actually relates to wood usage and stove usage. In addition, it is not clear what sample is required and additional guidance would be welcome. We would be keen to understand how many stove monitors for the total population would be required (a calculation would be valuable) and how this data is actually meant to be used to support stove usage calculations.	More guidance is provided on what "direct measurement" means for liquid fuels. Biomass is not expected to be measured directly on an ongoing basis, but rather using KPTs and the methodology text now clarifies this. Please refer to the response in comment number 120.

		Based on the information provided in the draft methodology about the direct measurement approach (including metering/remote monitoring) to ascertain the values of various baseline and project parameters are sufficient enough for the use and verification of such measurements by the project proponents and VVBs. Please link all the referenced documents in the published version	
135	EcoSafi	The best way to determine the baseline is to ask every user individually what their current usage is. Especially with fuel switch projects where the project developer is already planning to have an ongoing relationship with the customer, asking for individual baseline data is a much more accurate method that generalized surveys, and the resulting improved data and carbon value should cover the additional expense.	Ok. No action needed.
136	Anonymous 7	No. In particular, Option 2 on page 18 describes the use of stove sensors to "determine the total duration of use per year". By this, presumably the stove sensors are simply determining whether the stoves are in use, and for how long. Option 2 then goes on to	The duration and fuel use rate method is removed to reduce risk of unconservative results. More clarity has been provided on the use of SUMs in all project monitoring (for daily stove usage rates). Clarity has been provided on KPT (periodic sampling) versus direct measurement (continuous fuel measurement) methods.

		state that one must "multiply by the stove fuel use rate to obtain project fuel use" and that "fuel use rate must be taken from the performance evaluation following...". It is not clear what "performance evaluation" is being referenced here. In addition, it is not clear how "Option 3: direct measurement" is distinct from "Option 1: KPT". It would be useful if Verra could provide additional guidance as to what constitutes a direct measurement approach and provide examples of same.	
137	Aera Group	No sufficient guidance for the use of metering devices. Is there any list of approved SUMs, any studies or protocol that can be shared to assess monitoring parameters? Which parameters to be monitored? How usage rate should be monitored. Any example? Although introduction of metering devices is a good point, it should ensured clear guidance are given and examples on how projects successfully used those devices especially for biomass stoves.	It is not considered appropriate to list "approved" SUMs since this may lead to unfair commercial advantage and since SUMs manufacturers and vendors are expanding. Projects should choose high quality SUMs to ensure their monitoring plan operates correctly and more clarity on this is provided in the methodology. Please refer to the answer (Developer's Response) in comment number 120.

Q8: Measurement and Monitoring Approach: What do you think about the proposed use of Stove Use Monitors (SUMs) for certain parameters to increase accuracy? Do you have any suggestions to further encourage or improve the use of SUMs?

Q8: Measurement and Monitoring Approach: What do you think about the proposed use of Stove Use Monitors (SUMs) for certain parameters to increase accuracy? Do you have any suggestions to further encourage or improve the use of SUMs?			
#	Organization	Comment	Developer's Response
138	Verra	**LPG and ethanol stove fuel consumption and ER claim** LPG and ethanol stove can displace either charcoal, firewood, kerosene, or coal stoves in the baseline. However, their consumption across the year might not be 100% for households as some households might lack enough money to refill the cylinders and within those few days, they use the baseline stove. The meth should guard against PP claiming for all the 365 days in a year of baseline stove displacement. Therefore, I suggest that PP should establish the daily baseline and fuel consumed and its equivalent baseline emissions per day (BE,d). At project scenario, PP shall also measure amount of LPG or ethanol required by household per day to provide their daily energy needs (equivalent energy displaced). Using the formula provided, PP shall then calculate the emission reductions per day (ERday)	The idea behind the included methods is that if the project can measure the fuel, it should. If all stoves measure all energy use, then there would be no need for SUMs. If there is sampling for direct measurement of fuels, then the stoves will also have to measure usage rate. The KPT method would be applied preferably only for fuels that are difficult to measure continuously, particularly firewood. Avoiding the need for periodic KPTs should present savings for the project developers.

		for the project. The ERday shall also be calculated to be equal to x grammes/litre of LPG or ethanol used. This must be made compulsory for any project using the methodology and implementing a project which involves LPG or ethanol. During monitoring, the PP shall record the total amount of LPG cylinders exchanged and their total litres of fuel/gas or ethanol in litres sold for any given monitoring period for each baseline scenario identified. Using the pre-determined ERday per litre of LPG/ethanol, the PP can then calculate the equivalent emission reduction realised by the project activity within the period based on the total volume of LPG/ethanol sold. This counter-check will guard against overclaiming of ERs by the PPs.	
139	Resilience Constellation Management Ltd.	The main element missing is monitoring of the sustainability of the biomass supply and its effectiveness at reducing biomass depletion in the project area.	Outside the purview of the methodology.
140	BeZero Carbon	In our view, the use of a Stove Use Monitor (SUMs) is likely to be much more accurate than end-user surveys which are conducted through observation or interviews. We find that there are inherent risk with these types of monitoring, and although uncertainty still exists whilst using	Noted.

		SUMs to some extent, their use is much more reliable. To better encourage SUMs, the methodology could cap the usage rates in which projects can apply depending on monitoring approach, such that those that adopt SUMs are able to declare higher usage rates.	
141	Modern Energy Cooking Services programme	Overall I am very positive about use of SUM and how that is implemented here.	Ok. No action needed.
142	Anonymous 5	The proposed use of Stove Use Monitors (SUMs) to measure the usage rate is a positive step towards increasing the accuracy of measurements. SUMs can help provide more accurate and reliable data on stove usage, which is essential for determining the accurate emission reductions. To further encourage or improve the use of SUMs, it is important to provide training and technical support to those who will be using them. This will help ensure that the monitors are used correctly and that the data obtained is accurate and reliable.	Ok. No action needed.
143	Anonymous 2	Yes, we are supportive of Stove Use Monitors. To promote the utilization of SUMs, an implementation of a usage rate can be introduced, contingent on the monitoring method applied. As a point of reference, the Usage Rate is implemented in the Gold Standard	Noted.

		Methodology - Simplified Methodology for Clean and Efficient Cookstoves - with monitoring data and information requirements identified by Parameter ID SMEC 16. These usage levels have a direct impact on the Emission Reduction (ER) equation, with higher ER being achieved as the usage rate increases. The higher percentage of claimable usage rate corresponds to monitoring using monitors.	
144	C-Quest Capital	The proposed methodology is unclear on how to directly measure the stove usage using stove use monitors (SUMs). The type of technology to be used, how accurate its results would be, calibration methods for sensors/IOT devices, etc., are not provided in the methodology. The use of SUMs should follow standard guidelines and the devices to be employed should be certified by a recognised organization/laboratory and calibrated in accordance with national/international requirements/IS.	Yes, more requirements for SUM use have been included. Also, requirements for SUMs such as applicable standards, certification and/or calibration are incorporated. Please refer to the response in comment number 120.
145	BURN Manufacturing	We welcome the use of SUMs to enhance quantification of usage in cookstove projects. However, the use of SUMs is still in early testing by most cookstove companies, and further research is needed to establish how best they	More requirement for SUMs have been included. The intention is not to require the SUMs to be fixed to the devices at manufacture (although 100% coverage of SUMs would be acceptable), but rather a random sample to be employed. More guidance has been included on this aspect.

		can be used to improve quantification. We recommend that Verra consult in detail with projects undertaking SUM trials to inform better, more detailed, guidelines for SUM use in this methodology. In particular, we have concerns about the sampling requirements for SUMs in Section 8.2.1.1. This implies that SUMs would be fixed at manufacture and remain on a device for the full product lifetime. This jeopardises the randomness of the sample and creates opportunity for PDs to intervene with households who have SUM stoves. Instead, we recommend SUMs be added to a random sample of different devices for each monitoring period, for a fixed period of no less than three months. In addition, please ensure that the sample requirements include a minimum number per product batch, and that this sample will meet the requirements of VCM ratings agencies.	
146	Anonymous 3	• SUMs improve the accuracy in determining the usage rate for the biomass stoves. Are there certification bodies that can certify the accuracy of the SUMs especially in developing countries? • The major challenges are costs	Practical challenges related to the cost of purchase, use by developers and certification of SUMs by VVBs. No action is needed.

		associated with purchase and the devices are not locally available.	
147	Columbia University & Ministry of Energy and Petroleum of Ghana	We believe that Stove Use Monitors provide increased accuracy over surveys. Because the desired information needs to be extracted from the raw data we recommend project developers be required to describe their approach to signal extraction and provide certifying bodies with access to the underlying data.	A requirement is included that the underlying SUM data be made available to VVBs.
148	Tecteg Mfr.	Yes, we produce a qualified thermoelectric generator that uses analytical Data linked to the cloud that can monitor usage base lines for regional deployments. This will verify usage claims with analytic data back-up and allow for a true mean level to be verified !	Ok. No action needed.
149	Climate Solutions Consulting	This goes in the right direction but devil is in the details. We advise you to use cooking days instead of cooking time. This is a lot more robust. SUMs should be used in conjunction with KPT not with lab test consumption rate (which is not accurate and depends on the stove power level). With KPT you can get daily fuel consumption at the household level and combine nicely with the cooking days metric from SUMs.	This method is refined and includes KPT vs. KPT with usage rate information.

150	Anonymous 1	VERRA should provide Usage Rate Guidelines similar to GS. The PD will have the option to conservatively assess the CS usage rate in the project activity or use SUMs to enhance the accuracy of monitoring data.	Noted.
151	TASC	SUMs are a great tool which can be used to increase accuracy of monitoring. However, it is still a relatively new field and lots of work still needs to be put in. In the guidance of the methodology it is stated that SUMs should be fixed at manufacturing. Although this could be good, it might take away from the "randomness" required when conducting surveys. If the SUMs are only on a set sample for the lifetime of the project, one could only increase monitoring at said households, which would skew the monitoring results. Thus it is advised the SUM monitoring should follow a similar guideline as the Gold Standard i.e. at least 100 SUMs on a randomly selected sample, operating for at least 90 days. Guidance on how the VVB's will assess the usage of SUMs is also required.	The methodology does not state that SUMs should be fixed at manufacturing and the text has been clarified to avoid this confusion. Further it includes instructions on sample size, including equation, and sampling methods to ensure random selection.
152	DelAgua	We welcome the use of SUMs to enhance quantification of usage in cookstove projects. However, the use of SUMs is still in	Please refer to the response in comment number 151. Regarding seasonality, guidance has been included on how to reflect seasonal variations in KPT measurements, when

		early testing by most cookstove companies, and further research is needed to establish how best they can be used to improve quantification. We recommend that Verra consult in detail with projects undertaking SUM trials to inform better, more detailed, guidelines for SUM use in this methodology. In particular, we have concerns about the sampling requirements for SUMs in Section 8.2.1.1. This implies that SUMs would be fixed at manufacture and remain on a device for the full product lifetime. This jeopardises the randomness of the sample and creates opportunity for PDs to intervene with households who have SUM stoves. Instead, we recommend SUMs be added to a random sample of different devices for each monitoring period, for a fixed period of no less than three months. In addition, please ensure that the sample requirements include a minimum number per product batch, and that this sample will meet the requirements of VCM ratings agencies. There also needs to be acknowledgement that cooking practices vary between seasons and seasonal variations need to be	necessary. Further, please note that the KPT protocol stipulates guidance related to seasonality.

		incorporated into the sampling set and timelines.	
153	Eni S.p.A.	Include a definition of Stove Use Monitors (SUMs) in Definitions paragraph. We considere appropriate the inclusion of the possibility of using SUMs to define ny,i,j and ty,i,j parameters.	The definition of SUMs is included. SUMs will be used to measure the rate of use (e.g., number of days the stove is used per year / in the monitoring period).
154	University of California, Berkeley	The methodology should require SUMs/metering, robust longitudinal surveys, KPTs (with hawthorne effect), or literature derived defaults.This will increase the quality of the credit and encourage use of direct measurement as the least intensive option behind literature defaults. Our article and supplemental materials -- Pervasive Over-Crediting from Cookstove Offset Methodologies -- provides detailed factor-by-factor analysis and guidance on cookstove offset estimation, including related to survey design and each of the major elements of the calculation equation. Please refer to that article and its supplemental materials for a thorough analysis.	The methodology does require SUMS, metering, or KPTs and requires cross-check of results with literature derived values and/or project information for internal consistency. It also requires longitudinal surveys. The mentioned article and supplemental materials have been reviewed as well as other publications describing criticisms of existing cookstove methodologies.
155	Koalisation	We agree. Measuring the stoves through s technology such a sensor, might lead to a better transparency on the actual usage of the stove and the relative issuance of credits.	Ok. No action needed.

156	Anonymous 8	As recommended earlier, additional criteria, an enhanced monitoring plan, increased safety measures for sensors, and expanded training capacity are essential for achieving greater accuracy in the results of the project activity.	Guidance on training / awareness for project beneficiaries related to stove use monitors is now included.
157	AGS Carbon Advisory	Yes	Ok. No action needed.
158	Project Developer Forum	We welcome the use of SUMs to enhance quantification of usage in cookstove projects. SUMs can help provide more accurate and reliable data on stove usage, which is essential for determining the accurate emission reductions. However, the use of SUMs is still in early testing by most cookstove companies, and further research is needed to establish how best they can be used to improve quantification. We recommend that Verra consult in detail with projects undertaking SUM trials to inform better, more detailed, guidelines for SUM use in this methodology. In particular, we have concerns about the sampling requirements for SUMs in Section 8.2.1.1. This implies that SUMs would be fixed at manufacture and remain on a device for the full product lifetime. This jeopardises the randomness of the sample and creates opportunity for PDs to	Please refer to the response in comment number 151.

		intervene with households who have SUM stoves. Instead, we recommend SUMs be added to a random sample of different devices for each monitoring period, for a fixed period of no less than three months. In addition, please ensure that the sample requirements include a minimum number per product batch, and that this sample will meet the requirements of VCM ratings agencies. To further encourage or improve the use of SUMs, it is important to provide training and technical support to those who will be using them. This will help ensure that the monitors are used correctly and that the data obtained is accurate and reliable. There also needs to be acknowledgement that cooking practices vary between seasons and seasonal variations need to be incorporated into the sampling set and timelines. Page 35, the SUM is referred only applicable for electric stoves. Further clarification needed for the use of SUMs with different devices using other fuels	
159	EcoSafi	SUMs should be used wherever possible. Projects using universal	Ok. No action needed.

		SUMs should generate more highly validated emissions reductions, and should receive recognition for data accuracy and verifiability. The cost of SUMs continues to plummet as does the cost and complexity of real time data collection. There are very few places and circumstances where the additional verifiability and resulting carbon income wont be more than sufficient to cover the additional cost.	
160	Anonymous 7	We applaud the proposed use of SUMs. We note, however, that the first reference to 'SUMs' in the methodology only occurs on page 30 in the parameter table for ny. However, we would encourage Verra to make this reference earlier on in the methodology, e.g., under Option 2 (page 18) where first mention is made of stove sensors (which presumably is referring to SUMs).	SUMs were added to definitions and more clarity on their application provided in the methodology.
161	Aera Group	Use of SUMs needs first an harmonized usage procedure, how the different parameters should be assessed with SUMs, what is definition of usage and non usage rate with SUMs? Without clear guidance, SUMs results may still bring as much uncertainties as paper based surveys. From our first trial of SUMs (trial on-going) we have noticed that usage of SUMs are quite expensive (buying/renting the devices, training surveyors, getting	Practical challenges related to the cost of purchase, use by developers and certification of SUMs by VVBs. No action is needed.

		users consent, travels for intermediary visits, replacement of broken/lost SUMs) but most important, usage rates can be defined and assessed in different manners hence a need of a protocol/clear methodology. Also to note that SUMs can bring different results based on the type of SUMs and the way it is parametered. Last but note the list systematic use of SUMs may have other types of impacts (electronic waste) that should also be taken in consideration	

Q9: Measurement and Monitoring Approach: Can SUMs be used to estimate accurately the amount of time that a stove is using fuel?

Q9: Measurement and Monitoring Approach: Can SUMs be used to estimate accurately the amount of time that a stove is using fuel?			
#	Organization	Comment	Developer's Response
162	BioLite Global	Yes, it can be used for time in use, but I would caution against applying those results to fuel savings rather than usage, since one has to then qualitatively apply kitchen-wide KPT results to each device in the kitchen rather than just the device with a SUMS installed, which can be subject to bias.	Yes, SUMs will be used for usage rate monitoring. Methods were adjusted to remove operating hours method.

163	Envirofit	Further guidance will required to help VVBs audit direct measurements	More guidance about use of SUMs has been included to facilitate auditing.
164	BeZero Carbon	The real-time approach to measuring stove usage by using SUMs, in our view, is more accurate than using survey techniques. Surveys are vulnerable to various biases, whether from observers or from end-users. SUMs can minimise these risks as continuous monitoring can occur, collecting real-time data. As stated previously, the methodology does not refer to the quality of SUMs or metering, which may be detrimental to the quality of data collection. In our view, the methodology requires guidance on the quality of SUMs which can be used, in addition to information regarding their calibration throughout the project.	Please refer to the response in comment number 120.
165	Modern Energy Cooking Services programme	As per detailed comments, I don't think time of use and some average or stated fuel/electricity usage rate can be an accurate method.	The methods have been adjusted to eliminate the method mentioned in this comment.
166	Anonymous 5	Yes, SUMs can accurately estimate the amount of time that a stove is using fuel. This is because SUMs are equipped with data loggers that collect physical data such as temperature, heat flux, electrical current, motion, or pollutant concentrations. By analyzing this data, SUMs can accurately determine the amount of time that a stove is	Ok. No action needed.

		using fuel. So, if you are looking to monitor the fuel usage of your cookstove, SUMs can be an effective solution.	
167	Anonymous 2	This will be design specific and wouldn't affect the accuracy of the methodology.	Ok. No action needed.
168	C-Quest Capital	During the simmering phase of cooking, the SUMs may not accurately record the amount of time as the sensor may not achieve the threshold to trigger the datapoints because of low heat during the cooking process. In addition, a stove may remain hot enough to continue to trigger a cooking event after the fuel has been put out by the user, therefore inaccurately adding time to a cooking event that should not have been added.	Please refer to the response in comment number 120.
169	BURN Manufacturing	Most SUMs are unable to measure more than temperature and time. This means they can be used to record "cooking events," but need to be linked to field studies to establish average fuel consumption per cooking event. We recommend that project developers undertake multi-day Kitchen Performance Tests (KPTs) to establish average fuel consumption per cooking event. Combined, this can provide more accurate project stove usage data	SUMs+other monitoring methods (KPT) is most accurate

170	Anonymous 3	• Calibration would be needed to ensure accuracy. The equipment should be certified by independent bodies to ensure credibility of the results obtained.	Calibration is crucial. AA to consider this feedback.
171	Tecteg Mfr.	No, I do not believe the SUM method can be used. Too much variations in usage depending on family size and acceptance of stove.	No. Practical challenges prevent its usage.
172	Climate Solutions Consulting	Unfortunately, not really. Cooking time is hard to measure precisely with SUMs because the stove often stay hot after the end of cooking and the end of cooking is subject to interpretation. We recommend that you use cooking events (number of time the stove is used) or cooking days (number of days the stove is used at least once) instead which is lot more robust (not subject to interpretation). Cooking days works well with the KPT where daily fuel consumption is measured.	SUMs+other monitoring methods (KPT) is most accurate
173	Anonymous 1	VERRA should provide Usage Rate Guidelines similar to GS. The PD will have the option to conservatively assess the CS usage rate in the project activity or use SUMs to enhance the accuracy of monitoring data.	Suggest GS type approach. Should be part of a separate/broader discussion. Can ignore for now.
174	TASC	Yes, SUMs can be used to estimate the time that a stove is in operation. However, it cannot determine what fuel is being used. SUMs are effective	Please refer to the answer (Developer's Response) in comment number 120.

		for monitoring usage, i.e. stove A was used 3 times on day x with each cooking event lasting on average 1 hour. Furthermore, in the guidance of the methodology it is stated that SUMs should be fixed at manufacturing. Although this could be good, it might take away from the "randomness" required when conducting surveys. If the SUMs are only on a set sample for the lifetime of the project, one could only increase monitoring at said households, which would skew the monitoring results. Thus it is advised the SUM monitoring should follow a similar guideline as the Gold Standard i.e. at least 100 SUMs on a randomly selected sample, operating for at least 90 days.	
175	DelAgua	Most SUMs are unable to measure more than temperature and time. This means they can be used to record "cooking events," but need to be linked to field studies to establish average fuel consumption per cooking event. We recommend that project developers undertake multi-day Kitchen Performance Tests (KPTs) to establish average fuel consumption per cooking event. Combined, this can provide more accurate project stove usage data	SUMs+other monitoring methods (KPT) is most accurate
176	Eni S.p.A.	We consider appropriate the use of SUMs to evaluate the amount of time	Please refer to the answer (Developer's Response) in comment number 120.

		that a stove is using fuel. The methodology shall better define SUMs eligible types and minimum technical requirements taking into consideration the type of cookstove.	
177	University of California, Berkeley	Metering and sales data is better, but SUMs are much better than surveys. See above.	OK. No action needed.
178	Koalisation	If followed by an accurate time calculation	OK. No action needed.
179	Anonymous 8	The methodology lacks an additional monitoring plan specifically addressing the use of SUMs. While continuous operation is outlined in the method, there is a need for further details on how the monitoring of SUMs will be conducted.	Please refer to the answer (Developer's Response) in comment number 120.
180	Project Developer Forum	SUMs can measure temperature and time. However, it is not necessarily possible to infer fuel consumption from these metrics. The accuracy of SUM timing data depends on how the SUM device is programmed. For example, SUMs can be programmed to only measure above a certain temperature. Once the set temperature is reached they begin monitoring time, but a family may have already been cooking (and consuming fuel) for 15+ minutes before the temperature was reached. In order for SUMs to match what is	Please refer to the answer (Developer's Response) in comment number 120. Additional instruction is added related to KPTs and how fuel availability for KPTs should be managed. Preferably, fuel supply should not be provided by the tester, but households should have to obtain fuel as they usually do.

		happening in the field, clearer protocols are required. Including linking SUMs to field studies to establish average fuel consumption per cooking event. We recommend that project developers undertake multi-day Kitchen Performance Tests (KPTs) to establish average fuel consumption per cooking event. Combined, this can provide sufficiently accurate project stove usage data. Further guidance and protocols are required to standardise how SUMs are programmed to define "cooking events". PDs using SUMs need clear protocol for determining these events.	
181	EcoSafi	Yes, along with temperature. This can generate an accurate summary of fuel used. SUMS + fuel sales data + individual baseline surveys is the most accurate approach.	Please refer to the response in comment number 136.
182	Anonymous 7	Yes.	OK. No action needed.
183	Aera Group	SUMs can be used to estimate time saving, but these need measurement on both baseline and project stoves for a basked of meals cooked and a good number of participants. Hence, bearing more cost and monitoring time for project developers	OK. No action needed.

Q10: Leakage Approach: Is there a risk of leakage emissions due to the increased burning of fossil fuels by the population that does not participate in the project (as a result of increased availability of fossil fuels saved by the project)? If yes, do you think the current provisions in the methodology effectively account for such risk?

Q10: Leakage Approach: Is there a risk of leakage emissions due to the increased burning of fossil fuels by the population that does not participate in the project (as a result of increased availability of fossil fuels saved by the project)? If yes, do you think the current provisions in the methodology effectively account for such risk?			
#	Organization	Comment	Developer's Response
184	Resilience Constellation Management Ltd.	This is an interesting approach. The blanket 5% leakage adjustment is not justified - is it based on any research? It seems counterintuitive to penalize emission reduction projects for effects of external actors increasing their emissions. There are parellels with indirect land use change arguments. I suggest it deserves wider discussion by market stakeholders.	In the absence of strong or consistent data about the impacts of cookstove efficiency and fuel switch projects on the fuel use of the surrounding population, the proposed leakage discount factor is an assumption that seeks to avoid overestimation of emission reductions. No action needed.
185	BeZero Carbon	We find that there may be a risk of increased fossil fuel burning by the population that does not participate in the project. However, there is little evidence to justify if the net-to-gross adjustment factor of 0.95 to account for this is appropriate. In our view, the best practice approach would be a leakage assessment which identifies any fossil fuel usage outside of project end-users, and any other source of leakage. If the level of	It is challenging and likely expensive to design and carry out studies that capture such effects. In the absence of strong or consistent data about the impacts of cookstove efficiency and fuel switch projects on the surrounding population, the proposed leakage discount factor is an assumption that seeks to avoid overestimation of emission reductions. No action needed.

		increased fossil fuel usage was deemed under the five percent based on the leakage assessment, the use of a 0.95 adjustment factor may be considered reasonable as a means of conservativeness.	
186	Anonymous 5	Yes, the current provisions in the methodology effectively account for such risk by requiring a net-to-gross adjustment factor of 0.95 to be applied. This adjustment factor helps to account for the emissions that may result from increased fossil fuel use by those not participating in the project. However, it is important to note that there may still be some level of uncertainty in estimating the magnitude of such emissions and that ongoing monitoring and verification are necessary to ensure that the risk is effectively managed.	Ok. No action needed.
187	Anonymous 2	No, there is no risk for leakage emissions as described. Leakage is considered as market leakage, activity shifting or ecological supply for increases in emissions that are both measurable and directly attributable to the project. The leakage scenario as considered represents a behavioural change, and has many other unmeasurable and conditional requirements to be plausible. For example, for this scenario of leakage to be plausible, there would have to be proven a	Please refer to the response in comment number 185

		constraint in supply of the non-renewable biomass or fossil fuel source in addition to the cleaner fuel, whereby the fuel savings from the project activity are combusted due to an increase in the level of consumption activity of other users. This leakage furl switch would also have to consider the cost of the fuel, technology availability to combust the fuel, and access to the fuel supply. In addition the linkage of the project activity in fuel savings while it may be correlated, does not directly in and of itself cause an increase in fuel consumption activity by other users and this is not therefore leakage as considered in the traditional three categories and as defined in the VCS methodology standard. This is an over design that weakens the methodology and activity accuracy based upon speculation that cannot be substantiated with reasonable efforts by the project developer or registry.	
188	C-Quest Capital	The current provisions in the methodology effectively account for such risk	Ok. No action needed.
189	BURN Manufacturing	We do not consider this a significant risk. Family fuel consumption is based on need, not fuel availability, and is not linked to what other families consume elsewhere.	Please refer to the response in comment number 184

190	Anonymous 3	• Yes, there is a potential leakage, however there should be a provision for the project developers to evaluate possible sources of leakage with evidence. Currently, the proposed methodology only provides for a discounting factor of 5% on the total GHGs. • Possible sources of leakage include: 1. Displaced project technologies being reused outside of the project boundary. 2. People in the project boundary who do not have the project technology use the fuel saved by project users due to increased availability of the fuel yet they previously used lower emitting technologies. 3. Project has significant impact on NRB reduction in a project boundary where other GHG projects are also claiming GHG reductions. 4. Population compensates for space heating previously provided by the inefficient technology using other forms of heating. 5. Households previously using lower emitting technologies e.g. electric cookstoves substitute with the new technology with higher emissions e.g. efficient charcoal stove due to promotion and marketing.	The methodology addresses the proposed sources in the following way: 1. These would likely replace higher emitting technologies, not relevant in most cases. 2. This source is addressed in a standardized way by the net-to-gross adjustment factor that seeks to be conservative. 3. This should be addressed by regularly updating the fNRB and using improved methods for determining fNRB; please see also the response in comment number 117. 4. This is unlikely to be an issue in the locations where most cookstove mitigation projects are implemented, i.e. between the Tropics of Cancer and Capricorn. 5. This will be captured by the methods including baseline survey and KPT.
191	TASC	We do not believe there is a risk associated with this. The population who are not part of the project will not	Please refer to the response in comment number 184

		have access to the infrastructure. If this is the logic applied, surely the same will apply for biomass based fuels.	
192	DelAgua	We do not consider this a significant risk. Family fuel consumption is based on need, not fuel availability, and is not linked to what other families consume elsewhere. We recommend no leakage.	Please refer to the response in comment number 184
193	University of California, Berkeley	See our thoughts on leakage from our article.	Please refer to the response in comment number 184
194	Anonymous 8	Yes, it will help for leakage assessment through burning of fossil fuel outside the project boundary.	Ok. No action needed.
195	Project Developer Forum	We do not consider this a significant risk. Family fuel choice is based on price, and fuel consumption is based on need, not fuel availability. Neither is linked to what other families consume elsewhere. We consider a 0% leakage to be appropriate	Please refer to the response in comment number 184
196	EcoSafi	We do not believe that to be a significant risk.	No leakage risk. Argues against there being a causation. No action needed.
197	Anonymous 7	Yes, there is a risk of leakage emissions due to the increased burning of fossil fuels by the population that does not participate in the project. Yes, the current provisions in the methodology effectively account for such risk.	Ok. No action needed.

198	Aera Group	This will mostly depend on the cost of the fossil fuels. If fossil fuels are available but at a higher cost than project fuel, risk of leakage are really low. However if the price of fossil fuels becomes lower (this is not actual scenario in most African countries) then yes risk of leakage as well as project users switching back to fossil fuel can be considered. However having those data or estimating these leakage, maybe very challenging. The methodology doesn't give clear guidance,	The methodology seeks to capture such impacts on project users by the methods including follow-up baseline survey campaigns, regular KPTs and direct measurement of fuel / energy use.

GENERAL FEEDBACK

General Comments

General Comments			
#	Organization	Comment	Developer's Response
199	Verra	The paragraph numbering should be continuous and systematic for ease of following and referencing during project reviews. For example; CDM AMS.II.G has a systematic and easy numbering system.	Verra VCS methodologies do not commonly apply paragraph numbering so it is not applied in this methodology.

General Comments			
#	Organization	Comment	Developer's Response
200	C-Quest Capital	PP can choose the following options for performing KPTs at different levels fulfilling the thermal efficiency requirement of at least 25 percent as per para 10 of Applicability Conditions: 1. If multiple project devices (same type) installed in the same household could be considered as a single device for cooking the required meal instead of considering two or multiple separate devices, then KPT (both baseline/project case) can be performed at household level. 2. If multiple project devices (different type) installed in the same household then baseline and project KPT should be performed at project device level. Rationale: If PP would have distributed single ICS to the end users, there may be chances that the end users could go back to the baseline stove for additional demand or simultaneous cooking otherwise they would have spent lot of time in the cooking process if they cook with one stove. Considering this scenario, PP had provided two similar ICS to a single HH to ensure there is a backup to reduce or eliminate stove	The methodological options have been simplified and the KPTs should always be performed in line with the KPT protocol on the household kitchen and all its devices, not focused on an individual device.

General Comments			
#	Organization	Comment	Developer's Response
		stacking and to maximize time saving benefits. This is either in the form of one stove with two separate combustion chambers or two separate stoves with their own combustion chambers. The proposed methodology should allow for the calculation of emission reductions in following options:	
201	C-Quest Capital	(cont'd from cell above) Option 1: KPT at HH level The emission reductions should be calculated at a HH level in case PP is conducting baseline and project case KPT at HH level to determine the fuel savings. In case one of the multiple device(s) is found to be in non-operation during the monitoring survey, then that HH should be considered as "Active" for parameter ny,i,j (Proportion of commissioned project devices of type i from batch j that are still being used in year y) as the other ICS remains operative. Option 2: KPT at project device level The emission reductions should be calculated at a project device level in case PP is conducting baseline and project case KPT at project device level.	Please refer to response to comment 200.

General Comments			
#	Organization	Comment	Developer's Response
		In case one of the multiple device(s) is found to be in non-operation during the monitoring survey, then that HH should be considered as "Active" for parameter "ny,i,j" as the other ICS remains operative.	
202	C-Quest Capital	The following text highlights the significant impact of charcoal consumption and thus underscores our feedback to ensure that charcoal production and combustion is not undervalued as it currently is in the methodology. Social and Environmental Context of Increasing Biomass Fuel Scarcity Population growth: Population growth in Africa is the highest globally, with strong urbanization pressures. The continent is expected to be home to 1.5 billion people by 2030 and 2.2 billion by 2050, compared to 1.2 billion in 2020, with a three-fold increase of the urban population expected. According to the World Bank (2022), roughly a quarter of the global population will live in Africa by 2050. Currently, 970 million people of the African continent lack access to clean cooking, and 600 million people, mostly in sub-Saharan Africa, lack access to electricity (IEA,	Noted.

General Comments			
#	Organization	Comment	Developer's Response
		Africa Energy Outlook 2022). The traditional use of biomass dominates residential energy demand in sub-Saharan Africa today, with more than 80% of the population relying on it. Three-stone open fires and other traditional stoves that burn wood, charcoal, and other forms of biomass typically have very low combustion and heat-transfer efficiencies. The large amounts of these fuels needed to meet basic cooking needs with such stoves means that they account for more than 95% of total residential energy use in sub-Saharan Africa (IEA 2022).	
203	C-Quest Capital	(cont'd from cell above) The demand for cooking fuel and the acceleration of wood consumption as the number of consumers using charcoal instead of burning wood is an increasingly important driver of deforestation and land degradation. The rate of deforestation is increasing in SSA, whereas in the rest of the World it is decreasing. SSA is the only region in the World where deforestation rates have increased over the last 20–30 years (FAO-FRA 2020) and this trend is likely to continue in the absence of intervention.	Noted.

General Comments			
#	Organization	Comment	Developer's Response
		The key drivers of deforestation and forest degradation are local/subsistence agriculture, the exploitation of forests and woodlands for fuel and building materials, and other commercial deforestation drivers, all compounded by rapid urbanization (Pacheco et al. 2021; Noriko Hosonuma et al., 2012; Kissinger et al., 2012).	
204	C-Quest Capital	Growing urbanization and cooking fuel demand: Urbanization in SSA accelerates demand for charcoal as a more convenient fuel in crowded settlements compared with firewood burned on crude stoves and in open TSFs. In this region, urban population is increasing at three times the rate of the rural population, leading to an increase in charcoal consumption of 7% per annum (Bockaire et al. 2020). [see chart directly to right] Across the whole urban SSA, about 40% of urban households use charcoal for cooking although in some countries the percentage of urban households using charcoal is much higher, going as high as 70% in countries such as the Democratic Republic of Congo, Tanzania, Mozambique, Malawi, Zambia,	Noted.

General Comments			
#	Organization	Comment	Developer's Response
		and Uganda. [see second chart directly to right] Traditional earth-mound charcoal production uses between 6–13 tons of wood for one ton of charcoal produced in the carbonization phase. These figures do not include upstream losses from whole tree harvesting, when tree parts that are unsuitable for charcoal production are discarded as waste. Further, downstream losses of usable charcoal in the form of fines generated by long-distance transport of lump charcoal are also not included in the above ratio range.	
205	C-Quest Capital	When conducting baseline and project Kitchen Performance Tests (KPTs), what is the approach to determine seasonal variation regarding fuel consumption? Would this require multiple KPTs in the different seasons, which is time consuming and expensive, or are there adjustment factors that can be used and how would adjustment factors be determined?	More guidance is added to the methodology on reflecting seasonality in the KPTs. Please note that the KPT protocol also addresses seasonality directly in its instructions.
206	C-Quest Capital	During monitoring, If a cookstove is physically present in the household and it is observed that the household uses the stove, what is the usage threshold to	When the adoption rate is defined by survey, it is the average of the responses "yes" (1) and "no" (0) to the question "If yes, have you used the stove regularly since you installed it?", where this response is cross-

General Comments			
#	Organization	Comment	Developer's Response
		consider a stove "in use" or "not in use"? And is usage determined in number of meals per week or number of days per week or some other formulation?	checked and confirmed with the physical check of the stove and the coherency with the responses to the following questions of the survey. Clarified in the methodology.
207	BURN Manufacturing	To allow stakeholders to share complete and comprehensive feedback within and between organisations, please allow for adequate public consultation period. In particular, if conducting consultations over the Christmas and New Year period, please allow at least six weeks.	Noted and the consultation time was extended.
208	BURN Manufacturing	Given the ongoing development of a new consolidated cookstove methodology by the 4Cs consortium, we encourage Verra to ensure that all new methodologies are aligned.	The methodology seeks to be aligned with Verra VCS program requirements, ongoing UNFCCC CDM developments related to fNRB, and findings and requirements from different integrity-related initiatives in the VCM and academia.
209	BURN Manufacturing	We would expect all stoves to be able to generate credits to be uniform in their production to have comfort in the stove efficiencies. It is not possible to have a homogenous group if the stoves are made in the home or locally. There needs to be consideration of how stove efficiencies can be calculated for the population if they are not mass produced within a factory. Additional requirements for stoves not	The methodology seeks to be technology neutral.

General Comments			
#	Organization	Comment	Developer's Response
		made in uniform fashion in a factory are needed	
210	Clean Cooking Alliance	Led by the Clean Cooking Alliance (CCA), the Clean Cooking and Climate Consortium (4C), would like to express appreciation for Verra's commitment to enhancing cookstove carbon methodologies. After careful consideration, we have identified certain issues with the M0174 methodology that we believe warrant reconsideration. First and foremost is the likelihood of increased confusion and inconsistency in the cookstove/carbon sector due to the publication of the M0174 methodology. During a call on January 11, 2024, CCA expressed this concern to Verra and suggested that, instead of advancing the M0174 methodology independently, it would be better for the ecosystem if Verra played a larger role in the development of the 4C methodology and endorsed that. Since 2022, 4C has been actively developing a comprehensive and scientifically sound methodology designed to credit emissions reductions from cookstove projects for use under	Ok. Not action needed

General Comments			
#	Organization	Comment	Developer's Response
		the Paris Agreement and in the voluntary carbon market. Expected to be finalized this year, the 4C methodology will apply to all cooking transition scenarios, eliminating the need for multiple cookstove carbon methodologies and providing the most realistic estimates of emission reductions from cookstoves to date. Rather than further fragmenting the clean cooking carbon space with an additional methodology, we strongly advocate for a unified approach. In this context, we urge Verra to halt the further development of the M0174 methodology and instead join forces with 4C. This collaborative and streamlined approach would reduce confusion among stakeholders, minimize integrity risks, and increase consistency across standard bodies. UNFCCC and Gold Standard have already committed to aligning with 4C methodology, reinforcing the importance of a unified approach that is endorsed by subject matter experts and leading standards bodies. Our recommendation is not meant to undermine Verra's efforts but to foster	

General Comments			
#	Organization	Comment	Developer's Response
		collaboration in achieving a shared goal. By aligning with the 4C methodology, Verra could contribute as a co-author, bringing valuable insights to a harmonized framework that benefits emissions reduction crediting in the cookstoves sector. Thank you for considering these comments. We look forward to continued collaboration and dialogue on this important matter. Additional clarifications are provided below.	
211	Clean Cooking Alliance	The M0174 methodology refers to some protocols as "CCA Protocols". For example, pg. 3 says "the following protocols from the Clean Cooking Alliance (CCA): • CCA Durability Protocol • CCA Controlled Cooking Test Protocol • CCA Kitchen Performance Test Protocol • CCA Water Boiling Test Protocol". Clarification: These protocols are not "CCA protocols". They were developed collaboratively by CCA partners, but it is incorrect to add "CCA" to their titles. The Durability Protocol was developed by the Center for Energy Development and Health at the Energy Institute at	The references were modified in the methodology.

General Comments			
#	Organization	Comment	Developer's Response
		Colorado State University. The Controlled Cooking Test Protocol was developed by Rob Bailis for the Household Energy and Health Programme, Shell Foundation. The Kitchen Performance Test Protocol was originally prepared in 2003 by Rob Bailis with input from Kirk R. Smith and Rufus Edwards for the Household Energy and Health Programme, Shell Foundation, and revised in 2018 by Rob Bailis, Ryan Thompson, Nicholas Lam, Victor Berrueta, Godfrey Muhwezi and Esther Adams.	
212	Clean Cooking Alliance	Please note that ISO protocol 19867 does not apply to electric stoves.	The requirements were modified in the methodology.
213	TASC	Extension of public commenting period is requested as this commenting period was opened over the Christmas and New Years holiday seasons where many/most organisations shut down or work at limited capacity. By extending the commenting period, this will allow for more stakeholder to provide valuable feedback.	Noted and the consultation time was extended.
214	TASC	Given the ongoing development of a new consolidated cookstove methodology by the 4Cs consortium, we encourage Verra	Please refer to response to comment 208.

General Comments			
#	Organization	Comment	Developer's Response
		to ensure that all new methodologies are aligned.	
215	TASC	There should be a requirement for proof of prior consideration of carbon credits in the project development.	That is a standard requirement not a methodological requirement.
216	DelAgua	To allow stakeholders to share complete and comprehensive feedback within and between organisations, please allow for adequate public consultation period. In particular, if conducting consultations over the Christmas and New Year period, please allow at least eight weeks. We would request for an extension of the consultation period.	Noted and the consultation time was extended.
217	DelAgua	Given the ongoing development of a new consolidated cookstove methodology by the 4Cs consortium, we encourage Verra to ensure that all new methodologies are aligned. We would encourage there to be consistent methodologies across all registries and standards to aide transparency and confidence in the market. We would encourage VERRA to adopt the 4Cs methodology rather than adopt this methodology before changing to the 4Cs in the future (if this is the plan).	Please refer to response to comment 208.

General Comments			
#	Organization	Comment	Developer's Response
218	DelAgua	There should be some kind of statement that the cookstoves project devices should be made universally available without a requirement for any affiliation (political, religious) or other nature.	This is outside the scope of the methodology and may be addressed by social safeguarding requirements of the standard.
219	DelAgua	We would expect all stoves to be able to generate credits to be uniform in their production to have comfort in the stove efficiencies. It is not possible to have a homogenous group if the stoves are made in the home or locally. There needs to be consideration of how stove efficiencies can be calculated for the population if they are not mass produced within a factory. Additional requirements for stoves not made in uniform fashion in a factory are needed.	Please refer to response to comment 209.
220	University of California, Berkeley	Our article and supplemental materials -- Pervasive Over-Crediting from Cookstove Offset Methodologies -- provides detailed factor-by-factor analysis and guidance on cookstove offset estimation, including related to survey design and each of the major elements of the calculation equation. Please refer to that article and its supplemental materials for a thorough	Noted.

General Comments			
#	Organization	Comment	Developer's Response
		analysis. The article and supplemental materials: Pervasive over-crediting from cookstove offset methodologies, Annelise Gill-Wiehl, Daniel M. Kammen & Barbara K. Haya. (2024). Nature Sustainainability. https://doi.org/10.1038/s41893-023-01259-6 We are happy to email you the article and supplemental materials upon request. Here too is a website that summarizes the study findings and provides background and guidances to cookstoves carbon credit buyers and cookstove project developers: https://gspp.berkeley.edu/research-and-impact/centers/cepp/projects/berkeley-carbon-trading-project/cookstoves Here we highlight some of the most important recommendations and how they related to the proposed methodology. For each of these, the journal article and the supplemental materials provide more detail and describe the reasons for our recommendation in some depth.	

General Comments			
#	Organization	Comment	Developer's Response
221	University of California, Berkeley	Please see our article for more analysis and recommendations.	Noted.
222	Project Developer Forum	To allow stakeholders to share complete and comprehensive feedback within and between organisations, please allow for adequate public consultation period. In particular, if conducting consultations over the Christmas and New Year period, please allow at least six weeks.	Noted and the consultation time was extended.
223	Project Developer Forum	Given the ongoing development of a new consolidated cookstove methodology by the 4Cs consortium, we encourage Verra to ensure that all new methodologies are aligned.	Please refer to response to comment 208.
224	Project Developer Forum	There should be a requirement for proof of prior consideration of carbon credits in the project development.	Please refer to response to comment 215.
225	Project Developer Forum	Stove safety requirements should be set as part of ex-ante stove standard specification	This is covered at program level not at the methodology level, by safeguarding requirements.
226	Project Developer Forum	There should be some kind of statement that the cookstoves project devices should be made universally available without a requirement for any affiliation (political, religious) or other nature.	Please refer to response to comment 218.
227	Project Developer Forum	We would expect all stoves to be able to generate credits to be uniform in their production to have comfort in the stove	Please refer to response to comment 209.

General Comments			
#	Organization	Comment	Developer's Response
		efficiencies. It is not possible to have a homogenous group if the stoves are made in the home or locally. There needs to be consideration of how stove efficiencies can be calculated for the population if they are not mass produced within a factory. Additional requirements for stoves not made in uniform fashion in a factory are needed	
228	TotalEnergies Carbon Solutions	The opportunity to review the Verra's Cookstoves methodology is important and expected by the market in order to meet the challenges of integrity, transparency and common approach / parameters, and to take into account to develop a robust cookstoves projects.	Noted.
229	TotalEnergies Carbon Solutions	A new consolidated cookstove methodology by the Clean Cooking Climate Consortium (4C) members & partners (CCA and Gold Standard in particular) is ongoing; we suggest that Verra ensures that this new methodology is aligned with the common project in order to tend to a "One cookstoves methodology" and a one voice for the market. Cookstoves segment can't afford internal divisions to restore trust:	Please refer to response to comment 208.

General Comments			
#	Organization	Comment	Developer's Response
		additionality, baseline, permanence, quantification, monitoring, value sharing along the value chain... shall be common concepts for all.	
230	TotalEnergies Carbon Solutions	Verra methodology needs to target CCP labelling from IC VCM as a top priority to ensure a higher integrity for Cookstoves projects.	Noted.
231	TotalEnergies Carbon Solutions	Verra should require the publication of key documents to ensure better transparency and enable a proper assessment by rating agencies	Noted.
232	EcoSafi	Ensure alignment with 4C process and most recent academic work (UC Berkelery, UNFCCC) and require regular updating of metrics to reflect best available data.	Please refer to response to comment 208.
233	EcoSafi	The methodology should incorporate the ability to recognize, update, and reassign carbon impact from a customer who transitions from an improved cookstove to a clean cookstove. Otherwise there could be double counting or a disincentive to provide improved services.	The methods seek to identify and reflect in a timely way changes to project and background cooking practices and devices that occur over the crediting period.

Section 1 - Sources

Section 1 - Sources			
#	Organization	Comment	Developer's Response
234	BioLite Global	The feedback period is too short given that a large majority of the period was over a holiday. The deadline should be extended.	Noted and the consultation time was extended.
235	BioLite Global	The 4C consortium is conducting a comprehensive methodology development process that tackles the intricacies of the cookstove sector in great detail and rigor. Please ensure that all new methodologies are aligned and consistent.	Please refer to response to comment 208.

Section 2 - Summary Description of the Methodology

Section 2 - Summary Description of the Methodology			
#	Organization	Comment	Developer's Response
236	Anonymous 4	Please provide specific guidance on solar cookstove	The methods do not apply to solar cookstoves and these have been removed from the methodology applicability.

Section 3 - Definitions

Section 3 - Definitions			
#	Organization	Comment	Developer's Response
237	BioLite Global	ISO/TR 19867-3:2018 does not apply to electric cookers.	The requirements were modified in the methodology.
238	Modern Energy Cooking Services programme	Definitions says "Modern electricity cooking devices Project devices powered by electricity and connected to national/regional grid or mini grids…" But "Cookstove characteristics and usage, 14) For electric project devices, the following electricity sources are eligible:" includes "Self-generated renewable electricity, " Should the definition text in section 3 include self generated electricity?	Definition included.
239	BURN Manufacturing	Definition of Modern Electricity Cooking Devices Tier 4 (40% thermal efficiency) is insufficiently ambitious for electric cookstoves, which should be able to achieve thermal efficiency above 70%, and ideally would score above 80%. Please also note that the ISO 19867 test protocol is for evaluating biomass stoves, not electric stoves. Electric	The requirements were modified in the methodology.

		appliances can only be evaluated per the IEC 60335-2-6 standard	
240	TASC	Definition of Modern Electricity Cooking Devices	The term was modified in the methodology.
241	Anonymous 8	Please add more definitions which are relevant in the methodology, for example, renewable biomass, Decentralized renewable energy systems, self generated renewable energy systems etc.	Additional definitions were added to the methodology.
242	AGS Carbon Advisory	Kindly add an example to make it clear how a batch can be defined	No action needed.
243	Project Developer Forum	Definition of Modern Electricity Cooking Devices Tier 4 (40% thermal efficiency) is insufficiently ambitious for electric cookstoves, which should be able to achieve thermal efficiency above 70%, and ideally would score above 80%. Please also note that the ISO 19867 test protocol is for evaluating biomass stoves, not electric stoves. Electric appliances can only be evaluated per the IEC 60335-2-6 standard	The requirements were modified in the methodology.

Section 4 - Applicability Conditions

Section 4 - Applicability Conditions			
#	Organization	Comment	Developer's Response
244	Verra	Para 2, it should read project "devices" and not "units"	The term "thermal generation units" is used throughout the document. No change needed
245	Verra	Para 9, third-party biomass sources are required to be substantiated with proof of contracting. However, it is silent on how to ensure that the third party generates biomass from only renewable sources. Who is responsible for ensuring that the third party produces biomass from renewable sources and what if their sourcing is mixed?	Information related to renewable biomass sources may be included in the contractual agreements or purchase receipts. In the case of renewable biomass the sources must be known and vendors must provide contractual agreements, purchase receipts, or similar proof of purchase. This is different from the case where existing sources of biomass continue to be used during the project and there is not a guarantee of its renewable nature.
246	Verra	Par 13 (d): what is the use of this condition? and what if the PP doesn't transition? How will VERRA enforce this requirement if there are no credits after 2035 or once the crediting period has ended? Also, does it mean that 1st crediting period is allowed to claim carbon and in the second crediting period, the PP should transition and not claim carbon, or they can renew their crediting period while transitioning away from LPG with new project devices? – More explanation is required.	This requirement aims to support the transition from LPG to lower GHG emissions alternatives. The limit for carbon credits issuance was extended to 2045. More guidance on the transitioning plan was added to the requirement.

247	Verra	4. Par 14(b), is the self-generated electricity requirement affecting only the baseline or during project scenarios? Also, if for example, 50% of self-generated electricity is exported, it means PP cannot claim carbon, but the same PP if using electricity from grid can claim carbon? What is the logic?, if in the baseline, PP was using kerosene or charcoal and now, they generate electricity using solar/rooftop windmill and cook using an induction cooker and at the same time, they sell their excess electricity to the grid, why should they be prevented from claiming carbon?	This requirement only affects project scenario. It seeks to ensure that the renewable energy that is being produced is intended for thermal energy generation; otherwise there is a risk that the self-generated electricity is providing additional benefits or savings, such as those mentioned in the comment, that will not be reflected correctly in the baseline scenario selection and additionality justification.
248	Verra	Point no 4- In my opinion when the methodology is considering biomass residues as a source of methane emission, then there isn't a point in considering decrease in carbon pool on its removal. The PP is being asked to prove that the biomass residue would be left to decay in absence of project activity on one hand while on the other they also need to establish that its removal does not decrease the overall carbon pool.	The methodology does not consider biomass residues as a source of methane emissions in the baseline. The project must show that diverting biomass residues to the project will not lead to leakage from a diversion of biomass residues from other uses.
249	Verra	Point no 8- In absence of clear guidelines for monitoring the use of renewable charcoal, it is difficult to keep track of source of charcoal. We should provide grater clarity with regard to frequency of reporting whether continuous or annually or	Information related to renewable charcoal sources may be included in the contractual agreements or purchase receipts. In this case the sources must be known and vendors must provide contractual agreements, purchase receipts, or similar proof of purchase. Renewable charcoal production is effectively included in the project boundary. This is different from the case where existing sources of charcoal continue to

		once during a crediting period as well as means of verifying that all charcoal used within project boundary is renewably sourced and produced in advanced kilns.	be used during the project and there is not a guarantee of its renewable nature or the production characteristics.
250	Verra	Point no 18 (a) - When a hundred thousand or a million stoves are implemented under a project can we expect PP to set a 5km radius for each individual cookstove. Would it not be better if we ask the PP to identify and list areas from where maximum collection of wood for project region occurs and then apply a check whether any REDD+ activity is implemented there.	The requirements (mentioned in the public consultation version of the methodology document) were revised based on the comments received (over two consultations - one specifically for REDD+ double counting requirements) and internal discussions. The simplified requirements are overarching and non-prescriptive in nature and will only require project developers to report possible instances of double counting with REDD+ projects. This will allow Verra to gather and process crucial data on such instances and come up with credible and practicable requirements in the future (through cross-cutting engagement with REDD+ experts).
251	Verra	Point no 18 (b)- How would it be assess that a REDD+ activity is within 10 hours of travel time in motorized vehicle cause travel time would depend on type of vehicle and speed, or are we assuming that the speed would remain constant. A more practical approach would be to specify distance e.g. within 200 Km radius of the area of project implementation.	Please refer to the response in comment number 250.
252	BioLite Global	Cookstove Characteristics, point 13a - Given the inherent difficulty of defining NRB, is it realistic to expect the project to prove that the fuel used in the baseline survey is non-renewable?	Yes, the project must demonstrate that the baseline biomass fuel includes non-renewable biomass (fNRB > 0), otherwise the baseline fuel would be considered carbon neutral.

253	Envirofit	Section 4 sub-section 13 b, should be removed. It gives a value of 20% penetration at the threshold for a project being eligible, which is not only very low, but also assumes that access to LPG is the only barrier to it's adoption. Up-front cost of purchasing a cylinder and stove along with the high cost of purchasing fuel in bulk are major barriers that carbon finance can help overcome. The additionality criteria in section 7 should be sufficient to determine whether a customer can adopt LPG in the absence of carbon finance. Adding this criteria creates an artificial barrier to giving lower income households the ability to move up the energy ladder through carbon finance.	It has been removed. At the same time, the methodology maintains its intention is to discourage the use of carbon credits to finance expansion of fossil fuels when there are signals carbon finance is not needed for households to adopt such fuels.
254	Envirofit	Section 4 Sub-section 13 c) and d), when taken together are slightly confusing and should be clarified. c) states that the project cannot issue carbon credits post 2035, while section d) states that the project needs a transition strategy. Could the transition strategy, not be a shift over time from LPG, to renewable fuels such as bio-LPG or RDME, or to electricity?, and then crediting could continue, albeit with different project parameters.	Conditions for project devices using LPG have been modified to provide more clarity with respect to the transition plan and the limit for carbon credit issuance when using LPG
255	Envirofit	Section 4 sub-section 13 d) should be clarified to give more guidance to	Please refer to response to comment 254

		project developers and VVB's on what needs to be included in such a transition plan.	
256	Modern Energy Cooking Services programme	Cookstove characteristics and usage 10) Project cookstoves using renewable biomass (fuel-switch) or non-renewable biomass (improved efficiency) are single-pot, multi-pot portable or in-situ cookstoves with a thermal efficiency of at least 25 percent.6 Note 6 is confusing, as it refers amongst others to Efficiency thresholds of 20 percent (Tier 2), which does not meet the 25% requirement in point 10	It has been clarified that the 25% efficiency is the minimum starting efficiency for a new stove (which is expected to deteriorate during the life of the project).
257	Anonymous 2	Consider a more specific requirement on the way of treating the methane for charcoaling process	No action needed. The requirement indicates that methane produced during the charcoaling process must be captured and destroyed or combusted for energy purposes.
258	C-Quest Capital	1. The proposed methodology is unclear on how to identify if any REDD+ projects are active in the close vicinity or specified 5km radius from the location of the targeted households? 2. What type of secondary data sources the PP can use to cross check the same? 3. Will the baseline survey be reliable for projects located in rural areas when checking for overlapping REDD+ activities?	Please refer to response to comment 250

		4. What will be the implication if any REDD+ activities get implemented post-distribution of ICS/project activities within the radius of 5km?	
259	BURN Manufacturing	Cookstove Characteristics, point 10 We strongly believe that Verra should credit Best Available Technologies with at least Tier 3 thermal efficiency. "Improved" cookstoves with a thermal efficiency of less than 30% are not additional and should not be eligible for this new methodology	For cookstoves using biomass the thermal efficiency threshold is kept at 25 percent
260	BURN Manufacturing	Cookstove Characteristics, point 12 Please note that the ISO 19867 test protocol is for evaluating biomass stoves, not electric stoves. Electric appliances can only be evaluated per the IEC 60335-2-6 standard In addition, electric devices should achieve at least 70% thermal efficiency	Literature sources has been reviewed and a lower limit of 40% has been defined, taking into account that different types of electronic devices such as hot plates and hobs are considered. The threshold is in line with other standards. The requirement was modified in the methodology removing ISO 19867 test
261	BURN Manufacturing	Cookstove Characteristics, point 13a Given the inherent difficulty of defining NRB, is it realistic to expect the project to prove that the fuel used in the baseline survey is non-renewable?	Please refer to the response to comment 252
262	Clean Cooking Alliance	For the M0174 methodology to be applicable to electric and solar thermal projects, the following condition (among others) needs to be met: "Electric and solar thermal	Please refer to response to comment 260

		project cookstoves have a durability score corresponding to ISO/TR 19867-3 Tier 3 or above, or a maximum risk factor score of 15 on the CCA Cookstove Durability Protocol." Comment: The fact that the M0174 methodology mandates ISO durability testing poses a challenge as there are only two operating cookstove labs worldwide with the necessary equipment and expertise to conduct such testing. This limitation could hinder the participation of many valuable projects, thereby restricting the methodology's applicability.	
263	Columbia University & Ministry of Energy and Petroleum of Ghana	With respect to 13b, this wording would rule out projects that target disadvantaged populations within regions that have over 20% LPG use. For example, this would preclude working in an urban informal settlement that had very low LPG use but was situated in a region with higher use. Additionally, the terms “region” and “penetration” are not well defined. In some countries, “region” is a specific administrative designation, but in other countries it has no commonly accepted meaning. Also, “penetration” is ambiguous (does it mean % of households reporting that LPG is the primary fuel? One of several fuels?).	Please refer to response to comment 253.

		We recommend the following language: "households reporting LPG as their primary cooking fuel cannot exceed 20% of all households in the project population. This must be demonstrated by the baseline survey (Section 6.2) and cross-checked with official government documents and studies."	
264	Anonymous 1	"Project cookstoves using LPG or bioethanol are single-pot, multi-pot portable or in-situ cookstoves with a thermal efficiency of at least 30 percent": In these cases energy efficiency of the project CS should be higher at least 40-50% or should be clearly defined for each technology. This will help drive greater emission reductions. In GS the min threshold requirement is 40%.	No action needed. Threshold is kept
265	TASC	Cookstove Characteristics, point 10	No action needed
266	TASC	Cookstove Characteristics, point 13a	No action needed
267	TASC	Cookstove Characteristics, point 14c	No action needed
268	DelAgua	The minimum thermal efficiency of a cookstove distributed should be raised to 35%. 25% was fine when there were not new technologies available at scale; however, there are now and with the baseline efficiency default moving to 15% the barrier to entry should be increased.	No action needed. Threshold is kept

269	Anonymous 8	In the applicability criteria point 7 - Renewable biomass may be processed into fuels, such as briquettes, wood chips or charcoal. However, there is no specific stipulation regarding the age of the renewable biomass utilized in the production of briquettes/wood chips.	it is unlikely that renewable biomass will be stored under the conditions and duration to generate significant anaerobic decomposition prior to being transformed into fuel, given that this decomposition would damage the fuel characteristics of the biomass. Therefore no maximum storage criterion is provided for renewable biomass but it is assumed that fuel providers and users will behave in a rational way. No action needed.
270	Anonymous 8	In applicability criteria point 14 (b), Self-generated renewable electricity, where at least 80 percent of the annual electricity generated is consumed by the project devices. However, the monitoring of this requirement and the means of substantiating the criteria are not explicitly outlined. Notably, certain households with solar panels may employ a net metering system, yet the methodology does not include parameters addressing this aspect.	No indications on how to monitor the consumption of self-generated renewable energy is given to allow flexibility considering type of users
271	Anonymous 8	For cookstove characteristics and usage, the applicability criteria states, "Project cookstoves using renewable biomass (fuel-switch) or non-renewable biomass (improved efficiency) are single-pot, multi-pot portable or in-situ cookstoves with a thermal efficiency of at least 25 percent". These are the same efficiency measures used in AMS II G version 13 as well. Since, with time, the stoves are getting more advanced in nature, it would not be conservative	No action needed. Threshold is kept

		to keep the same minimum threshold requirements for stove efficiency.	
272	Anonymous 8	In the applicability criteria point 18, the methodology addresses criteria related to the distance and travel for conducting overlapping checks between REDD+ and cooking projects. However, it is highlighted that the feasibility of applying the same criteria for same country may be challenging, given the dependence of the REDD+ project on factors such as project scale and project boundary , land use pattern.	Please refer to response to comment 250
273	AGS Carbon Advisory	For electric and solar thermal project cookstoves, it is mentioned that the durability score shall correspond to Tier 3 and above. However, under the definitions of 'Modern electricity cooking device' it is mentioned that devices shall meet the standard of Tier 4. Kindly make it consistent.	Durability requirement has been removed from applicability conditions
274	AGS Carbon Advisory	Point 17: Again, it is stated that where a host country does not have applicable regulations for project technology, performance standards shall meet Tier 2 or above requirements. It will be good to have consistent communication throughout the document whether the performance standard should be Tier 4, Tier 3 & above, or Tier 2 & above.	No action needed
275	Project Developer Forum	Footnote 8 "Thermal energy devices under GHG crediting programs may	Penetration level analysis is required to establish if the use of LPG devices is considered as common practice in the

		be excluded from penetration level analysis" is not clear. If the project is developed under a PoA, is there a need to estimate the current penetration rate? Is this valid also for new PoAs?	region where the project activity (individual or grouped) will be implemented.
276	Project Developer Forum	Cookstove Characteristics, point 12 Please note that the ISO 19867 test protocol is for evaluating biomass stoves, not electric stoves. Electric appliances can only be evaluated per the IEC 60335-2-6 standard In addition, electric devices should achieve at least 70% thermal efficiency	Please refer to response to comment 260
277	Project Developer Forum	Cookstove Characteristics, point 13a Given the inherent difficulty of defining NRB, is it realistic to expect the project to prove that the fuel used in the baseline survey is non-renewable?	Please refer to the response to comment 252
278	TotalEnergies Carbon Solutions	**Section 4, Applicability Condition 17** : The methodology should be more precise in the pollutante emission requirement level, and target the highest possible one. The methodology covers all relevent baseline or project scenarios, in our view.	No action needed
279	Anonymous 7	With respect to applicability condition 12, Verra must ensure that an appropriate grace period is provided to projects that have already	The requirement does not imply the immediate switch out, it request a transition plan

		distributed devices that may not comply with this criterion. It will not be possible to immediately switch out already-distributed devices that have a lifetime of several years.	
280	Anonymous 7	With respect to applicability condition 13(b), it is not clear why this additionality-specific criterion is embedded in the applicability conditions. We would recommend removing this condition and simply leaving the additionality requirements of the methodology to stand on their own, rather than conflating them with the methodology's applicability conditions.	This eligibility requirement will be captured by the baseline selection and justification of additionality so has been removed.
281	Aera Group	ISO/TR 19876-3 does come with a cost. It would be great if VERRA can provide the guidances, to avoid putting again more cost on project developer. Also it is not clear why 25% is given as minimal efficiency while in footnote 6 20% is given (tier 2)?	Guidance of threshold values are given in Appendix 1. It has been clarified that the 25% efficiency is the minimum starting efficiency for a new stove (which is expected to deteriorate during the life of the project).
282	Aera Group	Definition of clean cooking. As per the following WHO definition (https://www.who.int/tools/clean-household-energy-solutions-toolkit/module-7-defining-clean) it seems that biomass improved stoves are not considered as clean cooking?	Electric stoves are the ones defined as clean cooking; improved biomass stoves are indeed not considered clean cooking

Section 5 - Project Boundary

Section 5 - Project Boundary			
#	Organization	Comment	Developer's Response
283	Modern Energy Cooking Services programme	Table 1: the emissions of CH4 and NO2 are not included for electricity generation and distribution as they are said to be negligible. This is not the case for some electricity generation fuel mixes. Since emission factors for this basket of three GHGs are widely available, it seems unnecessary to exclude it.	Projects may voluntarily include such emissions sources when considered significant.

Section 6 - Baseline Scenario

Section 6 - Baseline Scenario			
#	Organization	Comment	Developer's Response
284	Verra	Section 6.1 on baseline. In step 1. In step 1. It is stated that "Where a baseline alternative is defined using the results of a baseline survey, it must be cross-checked with information from at least one of the other sources listed". However, it is not clear on what the PP should do/follow with the outcome of the cross-checks. If the PP carries out a	This statement has been removed from the methodology

		check and finds a discrepancy, what should they do? How will the VVB validate the outcome of the cross-checks and, what should they do if there is a variation and what variation is allowed? The requirement must be precise to PPs otherwise, this is a loophole for them to take advantage of.	
285	Verra	Baseline survey 6.2 A requirement for seasonal variations of weather when surveys are carried out should be included to ensure that there is no skewed data collection during the season when households consume more fuel as opposed to those seasons e.g. dry season when a household consumes less fuel.	More guidance is added to the methodology on reflecting seasonality in the KPTs. Please note that the KPT protocol also addresses seasonality directly in its instructions.
286	Verra	Section 6.1, step 1- The methodology makes it mandatory for PP to cross verify survey results with regional study or publications, but it must be considered that for many projects, most recent regional data will not be available and this is specifically true for least developed countries, so an alternative option should be provided here else data vintage should be stretched.	Refer to response to comment 284
287	Verra	Section 6.1- remaining baseline scenario- in addition to the 2 scenarios mentioned, there could be a third scenario- end users using a mix of non-renewable biomass and	It has been added that the remaining scenario must be one, or a combination of the two scenarios mentioned

		fossil fuel in baseline example woodfuel stove + inefficient LPG stove.	
288	BeZero Carbon	We would like to suggest that baseline surveys are completed annually, or at a minimum, biennially. In our view, the penetration of the baseline technology may change over the course of the crediting period, and alternative scenarios where cleaner fuels or more efficient stoves become more common within the project region for the non-project end-users may arise. As a result of more baseline surveys with non-project end-users, the project is able to identify if the distribution of project stoves or technology throughout the crediting period continues to be additional. If, for example, electricity penetration increases in the project boundary, the project may become less additional due to the increased access to clean fuels, and vice versa. We believe this should be considered in cookstove projects to ensure the project remains additional.	Determined once at validation and cross-checked every two years. measurement campaign must be updated when changes are reflected.
289	BeZero Carbon	We find a lack of justification underlying the requirements for sample sizes and sampling techniques to determine usage rates of project devices the proposed methodology. Further, we find a lack of transparency in the requirements for disclosures relating to the sample	Sampling guidance has been included in Appendix 5

		points used. We recommend projects publicly detail how they ensure representative sampling to account for geographic and demographic variations among recipient households. Further, we recommend transparency regarding which households are involved in surveys, their locations, household characteristics, and sampling techniques. As this has not been proposed for the methodology, we recommend consideration of these factors.	
290	Modern Energy Cooking Services programme	6.1 Step 3, (1) states the scenario must be use of "…non-renewable firewood or charcoal… But the section 4 applicability is for " non-renewable biomass (e.g., firewood, charcoal)" The section 6 requirement should be aligned to the section 4 definition	It is consistent, the general term of non-renewable biomass is being used. No action needed
291	BURN Manufacturing	Baseline Survey Methods Survey and data collection methods should only be conducted as physical on site visits (face to face), except in exceptional circumstances (COVID, conflict). And/or project developers who use remote surveys should be subject to a discount/ haircut. This is to ensure that project developers ground-truth the baseline. A provision for remote surveys, in combination with Option 2	Requirements updated to reflect that the initial baseline survey must be physical on site visits.

		(backcalculated baseline) on page 16, means some project developers could claim high baseline fuel consumption without ever visiting the field	
292	BURN Manufacturing	There is no defined frequency for carrying out a baseline survey. Should be at validation or every 5 years?	Clarified. Determined once at validation and cross-checked every two years. Baseline measurement campaign must be updated when changes are reflected.
293	Anonymous 3	• Inclusion of suppressed demand baseline scenario where a project proponent shall be allowed to adjust the baseline fuel use based on a satisfactory level achieved by their peers. E.g, if a project is being implemented in a region where poverty levels are high, these group of people are deprived of the same level of development as their peers since access to energy is a challenge. The efficient project technology results into use of less fuel, hence end-users can cook more times a day using the same amount of fuel they would have used in the baseline scenario.	Suppressed demand is addressed by not restricting the use of additional stoves in parallel with the project stove. However emission reductions are not calculated related to growth in energy use.
294	Anonymous 1	Baseline of the project activity is fixed for the entire crediting period. The baseline should be assessed every 5 years to align with latest sector development.	Refer to response to comment 292
295	TASC	Baseline Survey Methods	N.A.
296	TASC	Baseline Survey Methods	N.A.

297	Anonymous 8	In the Baseline scenario section 6.1 (Selection and Justification of the Baseline Scenario),In the meth they mention multiple scenario fuel, Where the project activity replaces a mix of technologies, services and/or fuel types, the baseline alternative must be defined in a conservative way considering these variables. Where multiple fuels are used in the baseline, the proportion of baseline fuel usage may be established in terms of energy supplied by each of the identified fuels. There should be an inclusion of additional scenarios for both the baseline and project for a more comprehensive assessment & results.	Plausible scenarios for both baseline and project have been already considered in the methodology. No action needed
298	Project Developer Forum	Baseline Survey Methods Survey and data collection methods should only be conducted as physical on site visits (face to face), except in exceptional circumstances (COVID, conflict). And/or project developers who use remote surveys should be subject to a discount/ haircut. This is to ensure that project developers ground-truth the baseline. A provision for remote surveys, in combination with Option 2 (backcalculated baseline) on page 16, means some project developers could claim high baseline fuel	Refer to response to comment 291

		consumption without ever visiting the field	
299	Project Developer Forum	There is no defined frequency for carrying out a baseline survey. Should be at validation or every 5 years?	Refer to response to comment 292
300	TotalEnergies Carbon Solutions	**Section 6, Baseline Scenario paragraph 6.2**: How to prevent any uncertainties regarding the way that the survey will be conducted? Unclear if 100% yearly physical end-user visit is mandatory for Improved cookstoves ? We think it should be mandatory for this type of solution to ensure proper level of use. It should be coupled with a high level service of end-user maintenance	Refer to response to comment 291
301	EcoSafi	Require existing projects to review and update their metrics to match new projects coming online in the same service area, to avoid overcreditng risk	Checking of the established baseline is required every two years and this is designed to capture changing background conditions and prevent overcrediting.
302	Aera Group	It seems that the methodology is asking project developers to confirm and ensure that baseline stoves are discarded. In previous versions this was assessed and check during monitoring surveys. The continued usage of baseline stoves is assessed. However this time it seems that project developer should know for all installation if the baseline stove is discarded? This is not easily done, what is the case when user purchase	The methodology is not asking project developer to discard baseline stoves but is requiring to evaluate in baseline surveys if the baseline devices have been fully decommissioned or are kept in place and may potentially be further used.

		at point of sale? What if the end-user confirm that he will discard the baseline stove? A statement can be added in the contract ownership, with end-users confirming that they will discard baseline stoves. However ensuring since the beginning for all the end-users that baseline stove is discarded is really complicated, note also that it is quite impossible for project developer to force end-users to discard a stove especially when they are purchasing the stoves (not given for free)	

Section 7 - Additionality

Section 7 - Additionality			
#	Organization	Comment	Developer's Response
303	BioLite Global	Positive List point 2. In the context of additionality, Verra must consider the quality of the stove being distributed for free, and therefore the level of subsidy offered. Discounting a $5 stove to $0, does not offer the same additionality as discounting a highly-efficient $40 stove to $20.	Additionality may be demonstrated using a positive list or a project method; distributing cookstoves for free is only one option under the methodology.

304	Envirofit	Positive List point 2 - Free distribution of cookstoves is not always a good thing. Give away programs often result in lower adoption and less focus on meeting customers real cooking needs. Providing low quality stoves free of charge, that may or may not be adopted should not be encouraged through a less rigorous additionality requirement	Additionality may be demonstrated using a positive list or a project method; distributing cookstoves for free is one option under the methodology.
305	BeZero Carbon	The methodology does not outline disclosure requirements for the additionality requirements "Where the project activity installs or distributes stoves at zero cost to the end-user and has no other source of revenue other than the sale of GHG credits, the project activity shall be deemed additional". We suggest projects provide greater transparency to support additionality claims related to free stove distribution. For example, this could be through the summarised audit of signed testimonies by recipient households or financial operations disclosures to demonstrate that there is no revenue from stove sales. As this has not been proposed, we recommend consideration of these factors.	These types of requirements are included in the VCS program rules and are nor specific to this methodology. No change.
306	Modern Energy Cooking Services programme	7 Additionality: the use of 'steps' implies that a developer must follow each one, but in fact as I understand it steps 2 and 3 are alternatives. It is not clear if step 1 is necessary for	The language of the section indicates that all steps are mandatory. Step 3 is not necessary only if the assessment of step 2 results in the project activity being on the positive list.

		everyone? Suggest an alternative term to 'steps' is used, and the requirements are clarified.	
307	C-Quest Capital	Will NDC be considered for regulatory surplus or not under Additionality?	The expectation is that NDC will be considered and analyzed in the additionality assessment as part of regulatory analysis.
308	BURN Manufacturing	Positive List The methodology should only be available to project devices achieving Tier 3 or above thermal efficiency for biomass and above 70% thermal efficiency for electric	Thermal efficiency thresholds are provided in eligibility conditions and not in additionality section
309	BURN Manufacturing	Positive List point 2 Free distribution of cookstoves is not necessarily a positive thing. There is ongoing debate in the sector as to whether recipients of free technologies are as invested in stove use, and whether free distribution distorts the market. In the context of additionality, Verra must consider the quality of the stove being distributed for free, and therefore the level of subsidy offered. Discounting a $5 stove to $0, does not offer the same additionality as discounting a highly-efficient $40 stove to $20.	Please refer to response to comment 304
310	BURN Manufacturing	Step 3: Project Method Please liaise with VCM Ratings Agencies - especially BeZero, who place high weight on additionality - to develop templates which are acceptable to both Verra and the	Further requirements are described to ensure compliance with the current understanding of high-integrity additionality demonstration.

		Ratings Agencies. CDM Additionality tools are outdated.	
311	BURN Manufacturing	Step 3: Project Method "The project activity is not common practice." Please ensure that it is clear that an assessment of penetration should not include the project's own cookstove distribution numbers. Project distribution should not contribute to the assessment of common practice.	Specifications on how to perform the common practice analysis are provided in TOOL24 which is referred to in the methodology
312	TASC	Step 3: Project Method	N.A.
313	Project Developer Forum	Positive List The methodology should only be available to project devices achieving Tier 3 or above thermal efficiency for biomass and above 70% thermal efficiency for electric	Please refer to response to comment 308
314	Project Developer Forum	Positive List point 2 In the context of additionality, Verra must consider the quality and cost of the stove being distributed, and therefore the level of subsidy offered. For example, discounting a $5 stove to $0, does not offer the same additionality as discounting a highly-efficient $40 stove to $20.	Please refer to response to comment 304
315	Project Developer Forum	Step 3: Project Method Please liaise with VCM Ratings Agencies - especially BeZero, who place high weight on additionality - to develop templates which are acceptable to both Verra and the	Please refer to response to comment 310

		Ratings Agencies. CDM Additionality tools are outdated.	
316	Project Developer Forum	Step 3: Project Method "the project activity is not common practice." Please ensure that it is clear that an assessment of penetration should not include the project's own cookstove distribution numbers. Project distribution should not contribute to the assessment of common practice.	Specifications on how to perform the common practice analysis are provided in TOOL24 which is referred to in the methodology
317	EcoSafi	Distribution of free stoves without stove use monitors must be recognized as having potential for high risk of overcrediting.	The methodology encourages the use of SUMs

Section 8.1 - Baseline Emissions

Section 8.1 - Baseline Emissions			
#	Organization	Comment	Developer's Response
318	Verra	In section 8.1.1 Under Option 1: Measurement campaign (only for cookstoves), the survey is referred to as a measurement campaign. However, within the same section, the campaign is referred to as "baseline Kitchen Performance Test (KPT)".	Measurement campaign refers to the sampling that is conducted to perform the KPTs. No action needed.

		Please revise and use consistent names/words for each.	
319	Verra	Section 8.2.1.1 Option 2 for measuring stove use using sensors is provided. The same option should also be available for PPs in section 8.1.1.1.	Option 2 has been removed from the methodology since there were valid concerns about its integrity.
320	Verra	Equation 1- A usage factor needs to be introduced in addition to proportion of stoves operational during a monitoring period and both should be individually monitored. Project stoves can be operational but they will reduce emissions only when used. In most cases end users continue to use baseline stoves at pre-project level even after project implementation thereby causing little difference in fuel consumption. In the present methodology the two parameters are interrelated. Concluding that the stove is used if found operational on the day of survey cannot lead to conclusive analysis as surveys are conducted by PP so its relatively difficult to get actual stove usage rate based on a day's observation of whether the stove is being used in general. A proper usage survey for collecting data on total meals being cooked by the HH on average in a week and the proportion being cooked on project stove could give more realistic picture. There could also be cases where project stove is	These concerns are addressed in different ways in the methodology. First, the methodology encourages the use of SUMs to monitor usage rate (also called adoption) of project cookstoves. Second, as one option it uses periodic KPTs to measure how cooking devices are actually used in the household kitchens, and these measure use of all cooking devices and fuels. Third, as an alternative projects may monitor fuel consumption or electricity use on a continuous basis.

		non operational for certain period during MP because of missing parts or unavailability of replacement of broken parts which is fixed by PP during maintenance. All this data should go into calculating fraction of the year when stove is actually used by the end user. Contrary to this, proportion of operational stoves during an MP just gives the fraction of stoves found in working condition during the survey. A second option would be to monitor fuel consumption in all cookstoves being used by the household post project implementation which can be compared with baseline consumption to assess whether any fuel is being saved at all by the project. This will also address over estimation issues of projects where more than one cookstove has been provided to the beneficiary household.	
321	Verra	Section 8.1.1.1, option 1- In my opinion application of CDM guidelines for calculating sample size is not practical for conducting KPT. A KPT is a resource intensive test which is required to be carried out for a minimum of 3 days. In most cases PP has to provide wood to households since any addition/removal from the measured bundle jeopardizes the whole test. In addition to this Surveyors are required to visit the	These concerns are addressed in different ways in the methodology. First, guidelines are provided for adjustments that can be made to the standard KPT protocol to incorporate digital methods that are less labor intensive and require fewer visits to the household. Second, projects have the alternative to measure fuel use directly, avoiding the requirement for KPTs, which may furthermore encourage the implementation of clean cooking instead of efficiency improvements.

		HHs at roughly the same time for three consecutive days making it difficult for one surveyor to cover more than 5-6 households in a single day as a lapse in measuring wood consumed prior to beginning next day's cooking will render the results invalid. Add to this the travel time between households so in the end each surveyor can at max cover 3 or 4 households. Considering all of the above, any sample size above 35-40 will be extremely difficult to implement. It will result in both financial and temporal burden on PP.	
322	Anonymous 4	Please provide specific guidance on the calculations	Guidance is provided with the respective equations
323	Envirofit	The cross check requires for Option 1, means that you essentially have to do all of the work required for Option 2. This would encourage the use of only Option 2 which tends to be the less conservative Option.	Option 2 has been removed from the methodology since there were valid concerns about its integrity.
324	Modern Energy Cooking Services programme	8.1.1.1 BC is stated as being in tonnes but NCV is stated as TJ/tonne or TJ/M3. Surely then BC should be in tonnes or M3 ?	Corrected.
325	Modern Energy Cooking Services programme	8.1.1.1 A more conversative approach would be to require use of whichever of option 1 or 2 gave the lower value. At present, if Option 2 result is lower, then it seems to be open to the project to use option 2 instead.	Please refer to response to comment 323

326	Modern Energy Cooking Services programme	8.1.1.3 Very pleased to see the use of specific energy consumption. However, why is this requited to be based on CCTs? For other parameters to require KPTs, which are certainly more representative of 'real' cooking. KPTs also produce specific energy consumption results, so why not use KPTs here too? This would also allow developers to undertake one set of KPTs, for both traditional and project devices and to meet the needs of option 1 and option 2 assessments, and hence allow much better comparison of results. At present they might need to do KPTs for option 1 and CCTs for option 2.	CCT is applied in this case since electric project devices with additional characteristic such as the EPC are not expected to replace all baseline cooking activities, but only those that can be performed by the project device.
327	C-Quest Capital	The proposed methodology under Measurement Campaign/KPT (for cookstove) states that "The campaign must achieve confidence and precision of at least 90/10 for the target parameter of average daily fuel consumption per adult equivalent. The result must be scaled appropriately using the average household size (Hhi,j) to obtain the value of BCb,y,i,j". The average HH size should be based on National Statistics/ Published literature or studies. How reliable would be the value of average HH size to be considered for	The household size is determined though baseline survey and must also meet confidence and precision of at least 90/10.

		appropriate scaling i.e., the average household size arrived from the measurement campaigns on random sample HHs?	
328	C-Quest Capital	In case the PP chooses option 2 for the average quantity of fuel used per baseline device (BCb,y,i,j) for project devices using renewable or non-renewable biomass, Will only the project KPT be required to carry out for the calculation of both BCb,y,i,j and BCp,y,i,j avoiding baseline KPT?	Please refer to response to comment 323
329	BURN Manufacturing	8.1.1.1 Biomass Devices Option 1 Option 2 is much less conservative than Option 1 (see below) and is not an appropriate cross check. Much preferable is to remove Option 2 and require all project developers to ground truth their baseline fuel consumption with Kitchen Performance Tests.	Option 2 has been removed from the methodology since there were valid concerns about its integrity.
330	BURN Manufacturing	8.1.1.1 Biomass Devices Option 2 Backcalculating a baseline based on the ratio of thermal efficiency of baseline and project devices is the main source of over-crediting in cookstove projects today. We strongly recommend it is removed to protect Verra's reputation, and encourage good practice across the cookstove sectors. Specifically, Option 2 allows project developers to optimise lab tests to	Option 2 has been removed from the methodology since there were valid concerns about its integrity.

		show A) high efficiency of the project devise (nnew) and B) low efficiency of the baseline device (nold). With a large ratio locked in ex-ante, project developers are then incentivised to record high fuel consumption in the project scenario, as this generates a high baseline. There are many examples of project devices that perform well in the lab and then deteriorate quickly (within 6 months), giving high project fuel use data. Verra's new methodology should incentivise the distribution of highly efficient stoves - which meaningfully reduce fuel consumption and therefore record lower fuel consumption in the project scenario. This Option incentivises the opposite. In combination with A) the ability to conduct baseline surveys remotely by phone (page 11) and B) no floor value for baseline device efficiency (page 26), this Option creates opportunities for bad faith actors to record improbable baseline fuel consumption value, without needing to ground-truth with proper field research. If not possible to remove Option 2, please apply a cap on back-calculated baseline fuel consumption. For example, the wording and values	

		from TPDDTEC v4.0 - threshhold 0.75t and cap 0.95t/person see page 37. Option 2 should have a cap to align with either TPDDTEC requirements or a cap on total baseline wood consumption. We see some situations where the amount of wood saved from the cooking device is significantly larger than the baseline assumptions. For example if you are claiming 5 tonnes of wood are saved but the baseline used in fNRB calculation is 4 tonnes it is not possible to be saving 5 tonnes	
331	BURN Manufacturing	8.1.1.2 Electric Devices Option 1: We are encouraged to see measurement campaigns as an option for baseline fuel measurement in electric projects. Please ensure this is applicable to electric pressure cooker and induction cooker projects that qualify under 8.1.1.3. However, we are concerned by the need to cross-check with Option 2 (backcalculation) as a conservative cap - see below.	Adjusted for high-efficiency electric cooking devices.
332	BURN Manufacturing	8.1.1.3 Special considerations for project devices using electricity This should also specify induction cookers	Induction cooker do not have additional characteristics that affect energy consumption (i.e., pressure). No change.
333	BURN Manufacturing	8.1.1.2 Option 2 and 8.1.1.3 Backcalculating the baseline creates	Please refer to response to comments 323 and 331.

		two key problems: 1) Perverse incentives A backcalculated baseline incentivises higher in-project fuel usage, as this gives a higher baseline and therefore higher crediting overall. While high in-project usage can be a good thing (indicating high proportion of baseline technology displacement), that is only true if there are appropriate safeguards on the quality of the project device. We strongly recommend requiring over 70% thermal efficiency for electric stoves to be eligible. Without this, developers of low-quality stoves can fudge the lab results, lock in a favourable ratio, and then deliver stoves that are hugely wasteful of energy, but which generate high crediting. 2) Under-crediting risk Unlike in biomass stoves, where a backcalculation often results in an inflated baseline, with high-quality electric stoves the opposite could be true. PD research to model ERs from Gold Standard's MMECD has found that even highly efficient electric cookstoves (>85%) generate below 2 ERs per stove - lower than many biomass, biofuel and bioethanol projects.	

		A comparison of KPT baselines with electric project households and backcalculated baselines show that the latter underestimates baseline fuel consumption for electric projects. This could be because CCTs are unable to accurately measure the true fuel consumption than happens in the field. Cooking with biomass is fundamentally different to cooking with electricity - with time for wood to light, inability to quickly adjust temperature once lit, and time to cool. Further research is required (and is being undertaken) by project developers working in e-cooking to gather more CCT data.	
334	BURN Manufacturing	Please note that several project developers are actively gathering data on e-cooking SEC ratios compared to KPT baselines, and engaging in conversations on how to redesign MMECD. We would be extremely keen to organise a longer session with Verra to ensure this methodology doesn't replicate the same problems experienced with MMECD	Noted. Verra to consider
335	Anonymous 3	• Inclusion of measuring other SDGs beyond SDG 13	This is covered at program level not at the methodology level
336	Climate Solutions Consulting	Equation 1, definition of i and j is not consistent with definition of ECy,i,j Baseline emissions are derived from	Corrected

		energy consumption of baseline stoves, not from project stoves.	
337	Climate Solutions Consulting	Option 1: Measurement campaign. KPTs measure fuel consumption at the household level. In a context of fuel and stove stacking, one cannot get device level consumption from KPT. There are often multiple stoves using the same fuel in the household. Fuel consumption cannot be traced to a specific stove with a KPT We recommend instead to use daily fuel consumption at the household level as the metric derived from KPT to calculate ER.	The methodology is developed on a device level. It is specified in Option 1 that only the results for project stove fuel consumption will be used to calculate project emissions
338	Climate Solutions Consulting	Option 2 is likely to be much less conservative than option 1 To preserve the integrity of the meth, we advise to remove option 2 as option and to just use it as a safeguard to ensure baseline KPT is not too high.	Option 2 has been removed from the methodology since there were valid concerns about its integrity.
339	Climate Solutions Consulting	Equation 3: Households tend to use multiple fuel and stove in both baseline and project situation. In this context, it is often not clear which baseline stove is replaced by the project stove making this equation hard to use in practice and subject to interpretation. Like mentioned above, the only accurate way to measure fuel	Equation has been modified to consider an average value for baseline devices thermal efficiency

		reduction is to do a KPT in both baseline and project scenarios	
340	Climate Solutions Consulting	Please allow for the KPT to be carried out with digital datalogging scales instead regular scale. Datalogging weight sensors can take a measurement every minute and they combine nicely with stove use monitors. Digital KPT address a number of issue with Analog KPTs (we have a number of publication on this).	Usage of digital monitors for KPT is included in the Monitoring/measurement techniques guidance provided in Appendix 4
341	TASC	The formula for Bey is incorrect. fNRB should be multiplied with both the EF CO2 and EF non-CO2 values. As the formula stand now, in strict math terms, fNRB is only multiplied with the EF CO2 value. Does fNRB not apply to non-CO2 emission resulting from burning the same fuel?	Equation is correct since the fNRB value only affects CO2 emissions. Non CO2 emissions still need to be accounted for regardless of the renewability of biomass
342	TASC	8.1.1.1 Biomass Devices Option 1	
343	TASC	8.1.1.2 Option 2 and 8.1.1.3	
344	TASC	The formula for PEy is incorrect. fNRB should be multiplied with both the EF CO2 and EF non-CO2 values. As the formula stand now, in strict math terms, fNRB is only multiplied with the EF CO2 value. Does fNRB not apply to non-CO2 emission resulting from burning the same fuel?	Please refer to response to comment 341
345	DelAgua	8.1.1.1 Option 2 should have a cap to align with either TPDDTEC requirements or a cap on total	Option 2 has been removed from the methodology as an separated option, however the crosscheck with the back calculation still needed to be done to cap the energy

		baseline wood consumption. We see some situations where the amount of wood saved from the cooking device is significantly larger than the baseline assumptions. For example if you are claiming 5 tonnes of wood are saved but the baseline used in fNRB calculation is 4 tonnes it is not possible to be saving 5 tonnes.	consumption in baseline and avoid overestimation of baseline emissions The cap of baseline energy consumption is given by the crosscheck using the back calculation
346	DelAgua	8.1.1.1 Biomass Devices Option 1 Option 2 is much less conservative than Option 1 and is not an appropriate cross check. Much preferable is to remove Option 2 and require all project developers to ground truth their baseline fuel consumption with Kitchen Performance Tests.	Please refer to response to comment 323
347	University of California, Berkeley	The parameter BCbyij should be limited in the range of 2-4MJ-delivered /capita/year as a literature derived reasonable range of fuel consumption. See our article's section (including in the supplemental materials) on fuel consumption for further details.	The cap of baseline energy consumption is given by the crosscheck using the back calculation
348	Clean Air Trade, Inc.	Equation (1). Because non-renewable biomass (NRB) can produce both CO2 and non-CO2 emissions, it seems that the f_{NRB} needs be applied to both EF_{CO2} and EF_{nonCO2}? In other words, we suggest that the equation be changed to: $f_{NRB} \times (EF_{CO2} + EF_{nonCO2})$	Please refer to response to comment 341

349	Clean Air Trade, Inc.	The description for f_{NRB} regarding fossil fuel. Current text reads "this variable is not considered for fossil fuels". This is not clear enough. We suggest that it be changed to "Use 1 for this variable for fossil fuel", because fossil fuel is 100% non-renewable	Not agreed since fNRB is determined for biomass and not fossil fuels
350	Clean Air Trade, Inc.	For some thermal devices (such as solar cooker), the power received by the cooking pot can be obtained from the manufacturer. Thus, the energy received by the cooking pot can be calculated by *P*t*, where *P* is the power of the device and *t* is time the device is used. The energy saved from replacing baseline device is: P*t/η, where η is the efficiency of baseline (old) device. We suggest that this equation be used as option 3 for section 8.1.1.1 for devices that do not have an explicit efficiency number but a power number provided by manufacturer.	The methodology intends to encourage direct measurement therefore this option is not considered
351	Anonymous 8	In section 8.2.1 , NCVp,I parameter is not mentioned in the ex-ante parameters.	Correct. Added
352	AGS Carbon Advisory	The equation (5) for calculation of ECy,i,j for project devices using electricity shall be corrected. Specific energy of baseline device should be in the numerator. Currently it is reversed	Equation 5 is for the determination of baseline energy consumption and is correct

353	AGS Carbon Advisory	For project devices using fossil fuel, equation 2 has been advised to be used. For parameter BCb,y,i,j , methodology provided Option 1: KPT or Option 2: Thermal efficiency. For a project type where there is a fuel switch component such as non-renewable to LPG, how Option 2 is applicable. How can quantity of LPG consumed in project scenario be used to calculated quantity of non-renewable biomass. Instead, Option 2 in such scenarios should be calculated using thermal/useful energy output.	Option 2 has been removed from the methodology as a separate option but included as a crosscheck for option 1. It has been modified to consider energy consumption rather than fuel quantity
354	Project Developer Forum	8.1.1.1 Biomass Devices Option 1 Option 2 is much less conservative than Option 1 (see below) and is not an appropriate cross check. Much preferable is to remove Option 2 and require all project developers to ground truth their baseline fuel consumption with Kitchen Performance Tests.	Please refer to response to comment 323
355	Project Developer Forum	8.1.1.1 Biomass Devices Option 2 Backcalculating a baseline based on the ratio of thermal efficiency of baseline and project devices is the main source of over-crediting in cookstove projects today. We strongly recommend it is removed to protect Verra's reputation, and encourage good practice across the cookstove sectors.	Back- calculation as an option to determinate baseline emissions was removed so that direct measurement through KPT is encouraged, however the back calculation results are used as a conservative cap in case baseline KPT results are higher

		Specifically, Option 2 allows project developers to optimise lab tests to show A) high efficiency of the project devise (nnew) and B) low efficiency of the baseline device (nold). With a large ratio locked in ex-ante, project developers are then incentivised to record high fuel consumption in the project scenario, as this generates a high baseline. There are many examples of project devices that perform well in the lab and then deteriorate quickly (within 6 months), giving high project fuel use data. Verra's new methodology should incentivise the distribution of highly efficient stoves - which meaningfully reduce fuel consumption and therefore record lower fuel consumption in the project scenario. This Option incentivises the opposite. In combination with A) the ability to conduct baseline surveys remotely by phone (page 11) and B) no floor value for baseline device efficiency (page 26), this Option creates opportunities for bad faith actors to record improbable baseline fuel consumption value, without needing to ground-truth with proper field research. If not possible to remove Option 2, please apply a cap on back-	

		calculated baseline fuel consumption. For example, the wording and values from TPDDTEC v4.0 - threshhold 0.75t and cap 0.95t/person see page 37. Option 2 should have a cap to align with either TPDDTEC requirements or a cap on total baseline wood consumption. We see some situations where the amount of wood saved from the cooking device is significantly larger than the baseline assumptions. For example if you are claiming 5 tonnes of wood are saved but the baseline used in fNRB calculation is 4 tonnes it is not possible to be saving 5 tonnes	
356	Project Developer Forum	8.1.1.2 Electric Devices Option 1: We are encouraged to see measurement campaigns as an option for baseline fuel measurement in electric projects. Please ensure this is applicable to electric pressure cooker and induction cooker projects that qualify under 8.1.1.3. However, we are concerned by the need to cross-check with Option 2 (backcalculation) as a conservative cap - see below.	Please refer to response to comments 323 and 331.
357	Project Developer Forum	8.1.1.3 Special considerations for project devices using electricity This should also specify induction cookers	Please refer to response to comment 332

358	Project Developer Forum	8.1.1.2 Option 2 and 8.1.1.3 Backcalculating the baseline creates two key problems: 1) Perverse incentives A backcalculated baseline incentivises higher in-project fuel usage, as this gives a higher baseline and therefore higher crediting overall. While high in-project usage can be a good thing (indicating high proportion of baseline technology displacement), that is only true if there are appropriate safeguards on the quality of the project device. We strongly recommend requiring over 70% thermal efficiency for electric stoves to be eligible. Without this, developers of low-quality stoves can fudge the lab results, lock in a favourable ratio, and then deliver stoves that are hugely wasteful of energy, but which generate high crediting. 2) Under-crediting risk Unlike in biomass stoves, where a backcalculation often results in an inflated baseline, with high-quality electric stoves the opposite could be true. PD research to model ERs from Gold Standard's MMECD has found that even highly efficient electric cookstoves (>85%) generate below 2 ERs per stove - lower than many	Back- calculation as an option to determinate baseline emissions was removed so that direct measurement through KPT is encouraged, however the back calculation results are used as a conservative cap in case baseline KPT results are higher. Please refer to response to comments 323 and 331.

		biomass, biofuel and bioethanol projects. A comparison of KPT baselines with electric project households and backcalculated baselines show that the latter underestimates baseline fuel consumption for electric projects. This could be because CCTs are unable to accurately measure the true fuel consumption than happens in the field. Cooking with biomass is fundamentally different to cooking with electricity - with time for wood to light, inability to quickly adjust temperature once lit, and time to cool. Further research is required (and is being undertaken) by project developers working in e-cooking to gather more CCT data.	
359	Project Developer Forum	Please note that several project developers are actively gathering data on e-cooking SEC ratios compared to KPT baselines, and engaging in conversations on how to redesign MMECD. We would be extremely keen to organise a longer session with Verra to ensure this methodology doesn't replicate the same problems experienced with MMECD	Noted. Verra to consider
360	TotalEnergies Carbon Solutions	**Section 8, Quantification of GHG Emission reductions and removals paragraph 8.1** : The "Development of default values for fraction of non-	Alternative option (using Tool 30) for determining fNRB has been added in case UNFCCC values are not published within a reasonable timeline

		renewable biomass" Version 01.0 from UNFCCC is under developing, with strong impact on carbon credits. This work is key to align all methodologies with transparency and clear data. All actors should be involved to this key element. What happens if UNFCCC doesn't manage to publish the FNRB values within a reasonable timeline?	
361	Anonymous 7	We have identified a potential error in equation 1. Currently EFbiCO2 is being multiplied by fNRB and then EFbinonCO2 is being added to the result (within the parenthetical). However, fNRB should sit outside of the parenthesis and the summation of EFbiCO2 and EFbinonCO2 is what should sit inside of the parenthesis.	It is correct as is, since non-CO2 emissions from biomass are not compensated by maintenance of stocks of biomass.
362	Anonymous 7	The second paragraph on this page states that, "Where the baseline Kitchen Performance Test (KPT) indicates that baseline consumption is higher than that indicated by back-calculation from the project scenario, and the difference is not adequately justified to the VVB, Option 2 must be applied using the ratio of efficiencies as a conservative cap". It is not clear what it means to use "the ratio of efficiencies as a conservative cap". Is it not the case that if the KPT indicates higher consumption compared to Option 2,	Ratio of efficiencies refers to option 2, however option 2 has been removed as a separate option and left as a crosscheck for option 1

		that the value calculated via Option 2 must be used (and therefore any mention of a cap based on ratio of efficiencies is not needed)?	
363	Anonymous 7	Section 8.1.1.1 presents two 'options' for determining average quantity of fuel used per baseline device type. However, it seems that 'option' 2 is required regardless of whether 'option' 1 is chosen. It seems, therefore, that these are not actually 'options', but instead a stepwise process whereby KPTs are required as a first step, and then cross-check against calculation using thermal efficiencies is a second step. If this is the correct interpretation, then we would recommend renaming 'option' 1 and 2 as 'step' 1 and 2. If this is not the correct interpretation, and one does not need to conduct a KPT in case calculation using thermal efficiencies is the chosen approach, then this should also be made explicit by stating under option 2 that a KPT is not required as a cross-check where option 2 is applied.	Please refer to response to comment 323
364	Anonymous 7	Section 8.1.1.2 is not explicit whether a cross-check between Option 1 and Option 2 is required, as is explicit in Section 8.1.1.1. It is implicit in the sense that Option 1 states that the same procedures of 8.1.1.1 must be applied, but we recommend making	Section 8.1.1.2 has been removed and unified in section 8.1.1.

		the cross-check requirement explicit (if intended).	

Section 8.2 - Project Emissions

Section 8.2 - Project Emissions			
#	Organization	Comment	Developer's Response
365	Verra	In section 8.2.1 Consider having separate formula for each fuel type	Not necessary. No action needed
366	Verra	Section 8.2.1.1 option 2- The sensors get damaged by high heat, end users sometimes destroy them accidentally and sometimes these are removed owing to data privacy issues. We should either consider a standard measurement campaign period such as 120 days (4 months) of continuous monitoring covering seasonal variations or should allow discontinuities in continuous measurement.	Option 2 has been eliminated from the methodology. Refer to response to comment 319
367	Verra	Section 8.2.1.1 option 3- This option needs more clarity for example in case of wood stoves how would direct measurement apply and what would be its frequency. If left to PPs interpretation we will get a wide array	In this case, direct measurement with equipment calibrated in accordance with all applicable requirements and standards should be used. Additionally, a sample of project devices can be measured in such a way that a confidence and accuracy of 90/10 is achieved for the target parameter of total annual fuel use. In the parameter table BCp,y,j,k

		of applications of direct measurement of this parameter.	(Average quantity of fuel used by project device type j from batch k during year y) the monitoring frequency is set.
368	Verra	Section 8.2.1.2 option 2- Is there a fail-safe option if the fuel purchase records are under reported? There exists a possibility that end users may not report actual usage.	Continuous records of all purchases shall be provided to avoid under reporting of fuel usage
369	Envirofit	8.2.1.1 Option 2 should be removed. Whiles sensors can provide valuable data on acceptance, we do not believe the science on this has reached a state to determine concrete fuel usage numbers from.	Option 2 has been eliminated from the methodology. Refer to response to comment 319
370	Envirofit	8.2.1.2 Option 2 - the requirement to ensure that the LPG is only used for thermal generation while being correct, is not practical. Having specific cylinders that only connect to project devices creates a huge burden on project implementers, and may not be possible due to regulations mandating specific connection valves for LPG cylinders. Rather is would be better to have limit on usage that is deemed reasonable for customers (i.e. household customers should not be consuming more than 20kg's per month, or a per capita energy cap). This would limit usage to what is reasonable for cooking without adding unnecessary (and possibly not possible due to regulations) hurdles to programs.	It must be ensured that the fuel is only used for thermal energy generation by the project device. The example of attaching the cylinder only to the project device is just one way of ensuring the requirement, however other means can be applied

371	Modern Energy Cooking Services programme	8.2.1 and 8.2.2 What is the difference between a stove sensor and direct measurement? The stove sensor is an option for biomass stoves, but for electric stoves it is not. Are both terms and separate options actually needed? 'Stove sensor' sounds more like the sort of in-built monitoring possible for electric stoves…?	Option 2 has been eliminated from the methodology. Refer to response to comment 319
372	Modern Energy Cooking Services programme	8.2.2 stove operation time is not clearly defined, nor what measurements are needed. Similarly, this is to be multiplied by stove wattage, but no electric cookstove runs at one constant power throughout the cooking cycle. This seems like an imprecise route and should be removed.	This option has been removed from the methodology
373	BURN Manufacturing	Clarity is required on the confidence and precision levels for the KPT. The CDM Standard referenced provides a 90/10 confidence and precision threshold for sample selection rather than mean fuel estimates. It should be noted here too, that the KPT protocol itself (V4) provides no guidance on this variable as well. Clarity is further sought with regard to precision and confidence levels with respect to paired and/or independent sampling.	The precision and confidence levels of the KPT are determined according to the measurement equipment used, and are considered in the uncertainty of the calculation. The level of 90/10 is determined for sampling and is related to the requirements of the CDM standard, this is specified in more detail in appendix 5: Sampling Guidance of the methodology.
374	BURN Manufacturing	Can the different options of measuring baseline and project emissions be mixed and matched?	The methodology does not limit the combination of baseline and project measuring methods, however direct measured is encouraged and therefore presented as the first option

		(i.e., can developers chose different approaches ("options") for baseline emissions calculations with different calculation options for project emissions.) This is a risk that could allow gaming leading to over-crediting	
375	BURN Manufacturing	8.2.1.1 Project Emissions from Biomass Stoves; Option 2: Stove Sensors We welcome the use of SUMs to enhance quantification of usage in cookstove projects. However, the use of SUMs is still in early testing by most cookstove companies, and further research is needed to establish how best they can be used to improve quantification. We recommend that Verra consult in detail with projects undertaking SUM trials to inform better, more detailed, guidelines for SUM use in this methodology. Key questions remain e.g. how do you measure the number of cooking events a household normally has? If the stove sensor records use once per day, that could reflect 100% usage or 33% usage	Option 2 has been eliminated from the methodology. Refer to response to comment 319
376	BURN Manufacturing	8.2.1.1 Project Emissions from Biomass Stoves; Option 2: Stove Sensors The sampling method for use of stove sensors should require a minimum	Option 2 has been eliminated from the methodology. Refer to response to comment 319

		sample of 30 per age cohort ("batch") based on a random selection of samples from the project database, with a minimum sample size for the entire stove population of 100. The sampling period should allow for a minimum duration of 3 months, in line with comparable methodologies. Where SUM sampling is adopted, the sampling requirements should require the preparation of a unique sampling frame for each monitoring period to ensure that samples selected for SUM monitoring are not consistently based on the findings of the same cohort of stoves sampled in the first monitoring period. We have concerns that 8.2.1.1 implies that SUMs would be fixed at manufacture and remain on a device for the full product lifetime. This jeopardises the randomness of the sample and creates opportunity for PDs to intervene with households who have SUM stoves.	
377	BURN Manufacturing	8.2.1.1 Project Emissions from Biomass Stoves; Option 2: Stove Sensors Project fuel consumption should not be extrapolated from uses x "stove fuel use rate". It is unclear how "stove fuel use rate" would be determined by the ISO testing standard, or whether	Option 2 has been eliminated from the methodology. Refer to response to comment 319

		this would be relevant in the field. At present, most SUMs are only able to record number of "cooking events." Projects should undertake proper field tests (KPTs) to measure the average fuel consumption per cooking event. From there the average project fuel consumption can be measured by taking uses x average fuel consumption	
378	BURN Manufacturing	8.2.1.1 Project Emissions from Biomass Stoves; Option 3: Direct Measurement Clarity is required on the applicability of direct measurements (i.e. to which ICS technologies is this approach applicable) and any compliance or protocols for direct measurement that a developer would be required to adapt for the use of this approach.	Direct measurement is preferred for energy sources that can be metered such as electricity and fuels (cylinder supply).
379	BURN Manufacturing	8.2.1.2 Project Emissions from Fossil Fuel or Bioethanol Stoves Why does option 2, fuel purchase monitoring, only include LPG? Please include bioethanol stoves here. Note that projects that collect fuel sale data should also be *required* to use these for their usage rate (n)	This option was extended to consider also bioethanol stoves
380	BURN Manufacturing	8.2.2 Project Emissions from Electric Stoves; Option 1 Given that direct measurement from	Within the definition it is added that all appliances identified in electric cookstoves must be measured. Additionally, an option 1 is added where the measurement from the Kitchen

		electric stoves is relatively easy, we recommend setting a higher bar for sampling. Either all devices should be metered, with a random sample taken for measurement during each monitoring period. Or project developers should conduct ongoing metering on a high % of all devices, with some flexibility for rural connectivity problems.	Performance Test is used. A measurement campaign following the Kitchen Performance Test Protocol must be designed, carried out and analyzed in compliance with the latest version of the CDM Standard for sampling and surveys for CDM project activities and programmes of activities. The frequency of monitoring/recording of the parameter is stablished continuous and aggregated annually.
381	BURN Manufacturing	8.2.2 Project Emissions from Electric Stoves; Option 2 We recommend removing this option, as estimating TJ from manufacturer wattage specifications could easily lead to overcrediting. For example: The nominal wattage of a product device is 1800 Wtts for a run a time of 60 minutes provides a consumption rate of 1.8kWH. In reality, the power draw of the devices, depending on the cooking events, can be 50 - 70% less than the nominal wttage. In a scenario where the wattage consumed is 900 watts, Option 2 inflates electricity consumption two fold.	Option 2 has been eliminated from the methodology. Refer to response to comment 319
382	Climate Solutions Consulting	Option 1: Measurement campaign. KPTs measure fuel consumption at the household level. In a context of fuel and stove stacking, one cannot get device level	Refer to response to comment 337

		consumption from KPT. There are often multiple stoves using the same fuel in the household. Fuel consumption cannot be traced to a specific stove with a KPT. Use daily fuel consumption at the household level instead. This is a direct metric of KPT and you will capture fuel/stove stacking seamlessly.	
383	Climate Solutions Consulting	Option 2: cooking duration is hard to measure precisely using Stove sensor. This metric is subject to interpretation because the stove remains hot for some time after the end of the cooking events. Fuel consumption rate (kg/min) depends on what power level the stove is used. This is acknowledged by ISO 19876 where they suggest to collect some field data to determine what % of the time the stove is used at low, medium or high power. Because, no field data is collected on these ratio (of stove power) as part of these monitoring guideline, the PD will be left guessing and there will be a lot of uncertainties around fuel rate. The bottom line is that one cannot estimate fuel consumption with SUMs alone. SUMs are a usage sensors. We suggest instead to remove option 2 and to integrate SUMs into option 1 (KPT) and to place a SUMs on the project stove during KPT. This will	Option 2 has been eliminated from the methodology. Refer to response to comment 319

		allow to measure project household fuel consumption only when project stove is used and to not take into account fuel consumption when project stove is not used. Then, by comparing baseline and project household daily consumption from KPT, you get the impact of one day of project stove use. This align nicely then with SUMs used continuously on the stoves to assess the number of days that project stove is used. To summarize: - one time baseline and project KPT assess the impact project stove on daily fuel consumption reduction. - continuous usage monitoring with SUMs count the number of day the project stove is used. There is no impact when project stove is not used on a particular day.	
384	Climate Solutions Consulting	Please allow for the KPT to be carried out with digital datalogging scales instead regular scale. Datalogging weight sensors can take a measurement every minute and they combine nicely with stove use monitors. Digital KPT address a number of issue with Analog KPTs (we have a number of publication on this).	Please refer to response to comment 340
385	TASC	Clarity is required on the confidence and precision levels for the KPT. The	Please refer to response to comment 373

		CDM Standard referenced provides a 90/10 confidence and precision threshold for sample selection rather than mean fuel estimates. It should be noted here too, that the KPT protocol itself (V4) provides no guidance on this variable as well. Clarity is further sought with regard to precision and confidence levels with respect to paired and/or independent sampling.	
386	TASC	It is unclear if PD's can mix and match calculation and measurement options in the project and baseline scenarios which could result in "gaming" of the methodology to maximise emission reductions. It should be made clear that if "Option 1" is chosen in the baseline "Option 1" should be used in the project scenario, as an example.	Please refer to response to comment 374
387	TASC	8.2.1.1 Project Emissions from Biomass Stoves; Option 2: Stove Sensors	N.A.
388	TASC	8.2.1.1 Project Emissions from Biomass Stoves; Option 2: Stove Sensors	N.A.
389	TASC	8.2.1.1 Project Emissions from Biomass Stoves; Option 3: Direct Measurement	N.A.
390	TASC	8.2.1.2 Project Emissions from Fossil Fuel or Bioethanol Stoves	N.A.

391	DelAgua	In option 2, how do you measure whether a household has one cooking event per day or three? If the stove sensor is used once per day, that could reflect 100% usage or 33% usage. Additional guidance is necessary for clarity.	Option 2 has been eliminated from the methodology. Refer to response to comment 319
392	DelAgua	Option 2 should include this for bioethanol sales as well not just LPG (i.e. any sold fuel)	Refer to response to comment 379
393	University of California, Berkeley	When a kitchen performance test is used to monitor actual usage of the efficient stove, we recommend increasing stacking rates by 29% and decreasing project usage by an appropriate amount to account for the Hawthorne effect. This well-known effect occurs when households change the way that they cook when visited by someone working for or hired by the company that provided the new stove.	Usage is determined either by the usa if SUMs or conducting a survey not by KPT. No action needed
394	University of California, Berkeley	The continuous use of sensors, meters, or other methods of direct measurement is best practice in monitoring actual stove and fuel usage. Ideally, when the results of direct measurement are converted into estimates of program emissions benefits by using a ratio of the efficiency of the new and baseline stove, the estimate should be	The rebound effect is reflected in the KPTs. Furthermore this is related to suppressed demand and increased energy use in the project due to alleviation of suppressed demand is not considered as higher project emissions, while at the same time emissions reductions are not calculated against this higher use.

		discounted by 22% to account for the rebound effect. The rebound effect is well documented and occurs when households cook more with efficiency improvements. Doing so would most accurately assess program emissions impacts, even though it does not recognize suppressed demand when it occurs. When results of direct measurement are compared with total baseline emissions (instead of using a ratio of relative stove efficiencies) then a discount for stacking (when the old stove is used alongside the new one) should be applied. Stacking rates in the literature average 68%.	
395	University of California, Berkeley	The parameter BCpyij should be limited in the range of 2-4MJ-delivered /capita/year as a literature derived reasonable range of fuel consumption. See our article's section on fuel consumption for further details.	The project proponent must justify the energy use using independent third-party studies on cooking technologies and fuel/energy use that are specific to the project region, such as government publications, peer-reviewed literature, third party assessments and/or official data or statistics. Adjusted.
396	Clean Air Trade, Inc.	Equation (7). Because non-renewable biomass (NRB) can produce both CO2 and non-CO2 emissions, it seems that the f_{NRB} needs be applied to both EF_{CO2} and EF_{nonCO2}? In other words, we suggest that the equation be changed to: $f_{NRB} \times (EF_{CO2} + EF_{nonCO2})$	Not agreed. Please refer to response to comment 341

397	Clean Air Trade, Inc.	The description for f_{NRB} regarding fossil fuel. Current text reads "this variable is not considered for fossil fuels". This is not clear enough. We suggest that it be changed to "Use 1 for this variable for fossil fuel", because fossil fuel is 100% non-renewable	Please refer to response to comment 349
398	Clean Air Trade, Inc.	Section 8.2.3, equation (10), the calculation of other project emissions. This equation includes the production, transportation, and other emission sources of the project devices. But the calculation of baseline emission (Equation 1) does not include such items, which makes the two calculations (baseline and project emission) inconsistent. We suggest that the two calculations be consistent, i.e., either both include the emissions from production, transportation, and other sources, or none include these items.	Other emissions are not included in the baseline to avoid overestimating the emissions reduction calculation.
399	Project Developer Forum	Clarity is required on the confidence and precision levels for the KPT. The CDM Standard referenced provides a 90/10 confidence and precision threshold for sample selection rather than mean fuel estimates. It should be noted here too, that the KPT protocol itself (V4) provides no guidance on this variable as well. Clarity is further sought with regard to precision and confidence levels with	Please refer to response to comment 373

		respect to paired and/or independent sampling.	
400	Project Developer Forum	Can the different options of measuring baseline and project emissions be mixed and matched? (i.e., can developers chose different approaches ("options") for baseline emissions calculations with different calculation options for project emissions.) This is a risk that could allow gaming leading to over-crediting	Please refer to response to comment 374
401	Project Developer Forum	8.2.1.1 Project Emissions from Biomass Stoves; Option 2: Stove Sensors We welcome the use of SUMs to enhance quantification of usage in cookstove projects. However, the use of SUMs is still in early testing by most cookstove companies, and further research is needed to establish how best they can be used to improve quantification. We recommend that Verra consult in detail with projects undertaking SUM trials to inform better, more detailed, guidelines for SUM use in this methodology. Key questions remain e.g. how do you measure the number of cooking events a household normally has? If the stove sensor records use once per day, that could reflect 100% usage or 33% usage	Option 2 has been eliminated from the methodology. The use of SUMs is kept for determining the proportion of devices that remain operating during year y

402	Project Developer Forum	8.2.1.1 Project Emissions from Biomass Stoves; Option 2: Stove Sensors The sampling method for use of stove sensors should require a minimum sample of 30 per age cohort ("batch") based on a random selection of samples from the project database, with a minimum sample size for the entire stove population of 100. The sampling period should allow for a minimum duration of 3 months, in line with comparable methodologies. Where SUM sampling is adopted, the sampling requirements should require the preparation of a unique sampling frame for each monitoring period to ensure that samples selected for SUM monitoring are not consistently based on the findings of the same cohort of stoves sampled in the first monitoring period. We have concerns that 8.2.1.1 implies that SUMs would be fixed at manufacture and remain on a device for the full product lifetime. This jeopardises the randomness of the sample and creates opportunity for PDs to intervene with households who have SUM stoves.	Option 2 has been eliminated from the methodology. The use of SUMs is kept for determining the proportion of devices that remain operating during year y
403	Project Developer Forum	8.2.1.1 Project Emissions from Biomass Stoves; Option 2: Stove Sensors	Option 2 has been eliminated from the methodology. Refer to response to comment 319

		Project fuel consumption should not be extrapolated from uses x "stove fuel use rate". It is unclear how "stove fuel use rate" would be determined by the ISO testing standard, or whether this would be relevant in the field. At present, most SUMs are only able to record number of "cooking events." Projects should undertake proper field tests (KPTs) to measure the average fuel consumption per cooking event. From there the average project fuel consumption can be measured by taking uses x average fuel consumption	
404	Project Developer Forum	8.2.1.1 Project Emissions from Biomass Stoves; Option 3: Direct Measurement Clarity is required on the applicability of direct measurements (i.e. to which ICS technologies is this approach applicable) and any compliance or protocols for direct measurement that a developer would be required to adapt for the use of this approach.	Direct measurement is preferred for energy sources that can be metered such as electricity and fuels (cylinder supply).
405	Project Developer Forum	8.2.1.2 Project Emissions from Fossil Fuel or Bioethanol Stoves Why does option 2, fuel purchase monitoring, only include LPG? Please include bioethanol stoves here. Note that projects that collect fuel	Refer to response to comment 379

		sale data should also be *required* to use these for their usage rate (n)	
406	Project Developer Forum	8.2.2 Project Emissions from Electric Stoves; Option 1 Given that direct measurement from electric stoves is relatively easy, we recommend setting a higher bar for sampling. Either all devices should be metered, with a random sample taken for measurement during each monitoring period. Or project developers should conduct ongoing metering on a high % of all devices, with some flexibility for rural connectivity problems.	Refer to response to comment 380
407	Project Developer Forum	8.2.2 Project Emissions from Electric Stoves; Option 2 We recommend removing this option, as estimating TJ from manufacturer wattage specifications could easily lead to overcrediting. For example: The nominal wattage of a product device is 1800 Wtts for a run a time of 60 minutes provides a consumption rate of 1.8kWH. In reality, the power draw of the devices, depending on the cooking events, can be 50 - 70% less than the nominal wttage. In a scenario where the wattage consumed is 900 watts, Option 2 inflates electricity consumption two fold.	This option has been removed from the methodology

408	Anonymous 7	We have identified a potential error in equation 7, which is the same as identified above for equation 1. Please refer to detailed comments above re: equation 1.	Not applicable
409	Anonymous 7	It is not clear how "Option 3: direct measurement" is distinct from "Option 1: KPT". It would be useful if Verra could provide additional guidance as to what constitutes a direct measurement approach and provide examples of same.	KPT is for cookstoves only and is preferred for those using biomass, while direct measurement is for electric and fuel cookstoves.

Section 8.3 - Leakage

Section 8.3 - Leakage			
#	Organization	Comment	Developer's Response
410	Envirofit	A default 5% leakage should be an option.	For use of non-renewable biomass by users not participating in the project, a net-to-gross adjustment factor of 0.95 to account for leakage must be applied for projects that reduce the consumption of non-renewable biomass.
411	BURN Manufacturing	We believe leakage should be 0%	Not agreed. No action needed
412	TASC	Should there simply be a general leakage provision of 5% on all projects to encompass all potential leakage factors: transportation, reuse of devices, fossil fuel use etc. If transportation is more than 200KM	Refer to response to comment 410

		per year it must be calculated separately.	
413	TASC	Has the presence and use of another stove in the home been accounted for in the monitoring of leakage?	Not considered as leakage source
414	DelAgua	We believe leakage should be 0%.	Not agreed. No action needed
415	Anonymous 8	In section 8.3.2, Leakage Emissions Associated with the Use of Renewable Biomass, the methodology mentions "Reuse of technologies replaced by project devices outside the project boundaries" as a source of leakage. The same point has been repeated below in the same section. Seems like a clerical error which needs to be resolved.	Repeated contents have been eliminated
416	Project Developer Forum	For projects aimed at reducing the consumption of non-renewable biomass through the implementation of more efficient devices, the project proponent is required to apply a five percent discount factor to the total GHG emission reductions to account for potential leakage emissions. It's worth noting that, in practice, there has been no observed occurrence of such leakage emissions, particularly considering that firewood is typically available at no cost in some of the countries and thus it is a common choice of all in rural area. Thus there will be continuation of usage not increase.	Not agreed. No action needed

		We believe leakage should be 0%	

Section 8.4 – Emission Reductions and Removals

Section 8.4 - Emission Reductions and Removals			
#	Organization	Comment	Developer's Response
417	Anonymous 8	In the Quantification of GHG Emission Reductions And Removals Section 8, In section 8.1.1.1 (Project Devices Using Renewable or Non-Renewable Biomass, Fossil Fuels or Bioethanol), Meth has provided the two options for calculating the average consumption of the baseline devices, first option say through KPT , but in the second para of the option mentioned about the "The quantity of fuel determined by this calculation must be compared to the results from Option 2 as a cross-check". This would infer that Option 1 is redundant.	Please refer to response to comment 323
418	Anonymous 8	in 8.1.1.3(Special Considerations for Project Devices Using Electricity),In Section 8, specifically 8.1.1.3 addressing Special Considerations for Project Devices Using Electricity, there is an error in the provided	Equation for the determination of baseline energy consumption when Project Devices Use Electricity with additional characteristics that affect energy consumption and is correct

		formula. It should correctly state the specific energy consumption for the baseline device divided by the specific energy consumption for the project device.(SCb/SCp)	

Section 9 – Monitoring – Overall Section Comments

Section 9 – Monitoring – Overall Section Comments			
#	Organization	Comment	Developer's Response
419	Anonymous 1	Methodology provided no guidance on recording of fuel purchased in the project to ensure the fuel is used for cooking and not used for other purposes. There should be monitoring and QA/QC processes to ensure the fuel purchased in project activity is not used for any other purposes.	The methodology mentions that the use of fuel must be only to generate thermal energy, for example by using a fuel cylinder design that may only be attached to the project device.

Section 9.1 - Data and Parameters Available at Validation

Section 9.1 - Data and Parameters Available at Validation			
#	Organization	Comment	Developer's Response
420	Anonymous 8	In Section 9.1 , for calculation of Fnrb, there should be option of utilizing TOOL 30 for said calculation.	Option of utilizing TOOL 30 has been added considering an uncertainty value
421	Verra	Data Parameter table EFp,i,CO2- charcoal in the project scenario is sourced renewably and produced through advanced pyrolysis and methodology requires methane to be captured and destroyed or used in process. However the CO2 and non-CO2 emission factor for charcoal is same for baseline and project.	Charcoal emission factors are applicable to the replacement of non-renewable biomass (e.g., firewood, charcoal) fired thermal energy generation units with more efficient project devices that use the same fuel as in the baseline;
422	Verra	Data Parameter table-SCb,i SCp,i- Use of CDM sampling standard for sample size calculation for CCT is very difficult to implement as CCT is a very intrusive test. PP will have to find end users who will agree to participate in the test and cook the given food. An equal number of surveyors will have to be present in the household to take the measurements as tests are underway. There should be an option for simplified sampling	Sampling must be robust. Comment not considered
423	BioLite Global	There is confusion about what the output data of a KPT. The variables BCb,y,i,j and BCp,y,i,j are each denominated in consumption per DEVICE, but a KPT measures consumption kitchen wide, not per device. The variables should be denominated in baseline kitchen	It is clarified in the methodology that for project scenario, only the results for project stove fuel consumption will be used to calculate project emissions.

		consumption vs project kitchen consumption, not per device.	
424	BioLite Global	Referring to baseline default values from Tool33 to establish the value for ηold,i,j is far too conservative. 15% for a three stone fire and 25% for an unimproved charcoal stove can only be accomplished in a laboratory environment in which fires are closely tended, unused charcoal is extinguished after cooking and reused, etc. These practices simply do not occur in the field, and those higher default values have been widely discredited as too conservative. Default values of 10% for a three stone fire and 20% for an unimproved charcoal stove are in line with reality and should be adopted.	Thermal efficiency values can also be determined though WBT, manufacturer certificates or certification by the host country's national standard body or certifying agency When using default values conservatism must be ensured and therefore TOOL 33 values are preferred.
425	Envirofit	The non-CO2 emission factor for Charcoal in the draft methodology is an applied value of 5.865 tCO2e/TJ. This value is derived from the IPCC Stationary Combustion report adjusted for AR 5 GWP data. This value however doesn't include upstream emissions from charcoal production and as such presents as significant under-crediting risk. It should be considered to use the 4x or 6x wood to charcoal conversion as is being recommended in the 4C methodology.	Upstream emission factor for charcoal has been included in the parameter table
426	Anonymous 5	The methodology talks about the value of fnrb which needs to be aligned with the CDM default and procedures that are still under development. The CDM fnrb data can be default value, but if any recent data is available, then that value should take precedence. This is more important to ensure	Noted The monitoring frequency has been set as a. Determined ex-ante and set for a given crediting period, in which case it will include the parameter is included ex-ante in the corresponding VCS Project Description (VCS PD) document. b. Biannually

		accuracy, region-specific values of fnrb. We recommend that any government body or not-for-profit institutions of repute within the regions/countries should be eligible for assessing the precise values of fnrb on a time-to-time basis. This evaluation should be based on thorough research and analysis of primary data so that they can obtain fnrb values that are specific to the regions/countries. This would help ensure the most accurate and appropriate fnrb value. By having a regional government body or institutions conduct this evaluation, it would be better equipped to understand the unique characteristics and needs of the regions/countries, which would allow for a more precise assessment of fnrb values w.r.t consumption, weather patterns, vegetation, and land use, which can influence the amount of carbon sequestered by forests. Therefore, it is essential to consider these unique characteristics to determine the most appropriate fnrb values for each region. Moreover, we propose this fNRB data be updated every 4 years to capture the latest scenario.	
427	C-Quest Capital	Section 4, Applicability Condition 8 restricts the methodology for renewable charcoal production by efficient processes which leads to consideration for a non-CO2 emission factor of only 5.865 tCO2e/TJ. However, it doesn't include the production emissions of CH4 and N2O. Otherwise, the cumulative Non-CO2 emission factor for charcoal would have been 44.83 tCO2e/TJ per	Upstream emission factor for charcoal has been included in the parameter table

		AR5 GWP IPCC default value. It should be similar to options provided for CO2 emission factor (refer table for "CO2 emission factor for fuel used by baseline device type i in the baseline scenario" under section 9.1). PP should be allowed to choose between 5.865 tCO2e/TJ (For combustion only); and 44.83 tCO2e/TJ (For combustion and charcoal production emissions).	
428	C-Quest Capital	PP should be allowed to establish the fraction of non-renewable biomass (fNRB) using CDM TOOL30 or other relevant sources such as MoFUSS or WISDOM, instead of only considering CDM fNRB default values to be adopted by UNFCCC. Also, the provision should be kept for considering country specific wood-to-charcoal ratio, per capita wood/charcoal consumption per day from credible sources or research studies including PPs own measured analysis in accordance with the latest “Standard for sampling and surveys for CDM project activities and programme of activities” for establishing the country/regional-specific fNRB value.	To use TOOL 30 as an alternative option to UNFCCC default values has been added By using TOOL 30 region/country specific characteristics are considered
429	C-Quest Capital	The Uncontrolled Cooking Test (UCT) should be included as a testing protocol to determine the thermal efficiency of a project device (ηnew parameter). The objective of the UCT is to evaluate the in-field (“Real-World”) thermal efficiency of a cookstove during uncontrolled	The methodology allow several recognized methods for determining thermal efficiency, including 1) Water Boiling Test campaigns in compliance with the latest version of the CDM Standard for sampling and surveys for CDM project activities and programmes of activities; 2) Manufacturer-certified value that is determined via Water

		cooking or the natural meal types and quantities that are cooked in a household on a given day. Testers should visit a household and plan to measure whatever meal is being cooked at the time of the visit. Breakfast, lunch, and dinner should be monitored. This means that by measuring thermal efficiency through UCETs, the final calculated result is the combined thermal efficiency of the stove and the dish that was cooked. This new method for thermal efficiency will provide better information as it more accurately reflects the cooking habits of each region. By measuring the sensible energy change of each ingredient in a dish, the total energy captured by the food can be calculated instead of the total energy that could potentially be used (i.e Water Boiling Test). By allowing household members to extinguish the fire how they would normally do, the efficiency metric may also change. Measuring the weight of the charcoal and wood after the household's representative shutdown/smoldering procedure will result in capturing the actual energy consumed instead of the minimum energy consumption when the remaining fuel and charcoal are measured immediately at the end of the cooking process (i.e. Water Boiling Test).	Boiling Test; or 3) Certification from the host country's national standard body or certifying agency. NO need to include another testing protocol
430	C-Quest Capital	The EF_CO2 and EF_NONCO2 for non-renewable charcoal undervalue the greenhouse gas intensity of the charcoal production and combustion process. The	This methodology does not consider the wood-to charcoal conversion charcoal but uses EF instead. Non-CO2 emission factor for charcoal production has been included in the corresponding parameter table

		wood-to-charcoal conversion ratio in traditional earth-mound kilns, the predominant kiln type in the developing countries, ranges from 6:1 to 18:1. We can support this with independent research from Oregon State University (OSU) and Aprovecho Research Center (ARC) that conducted dozens of kiln runs as well as looked at the entire lifecycle of the charcoal supply chain to determine loss in materials in Malawi and Ghana. Please see table to the right of results from Malawi from the OSU/ARC research showing approximately 6:1 ratio based on wood into kiln and kiln output. This goes up to ~8:1 when you consider the complete lifecycle of harvesting the wood from the forest all the way to charcoal making it to the household. Tests in Ghana have resulted in much higher ratios. The equivalent wood-to-charcoal conversion rate of applying a direct charcoal EF_CO2 (165.22 tCO2/TJ), EF_NONCO2 (5.865 tCO2/TJ) and NCF (0.0295 TJ/tonne) presented in the draft methodology results in a ~2.6:1 wood-to-charcoal ratio. This is unrealistic, even lower than the revised default value presented in CDM Tool33 of 4:1, which is also low and reflective of high-tech kilns and definitely not the common baseline practice in the developing countries. When substituting charcoal with a cleaner less carbon intensive fuel such as but not limited to e-cooking, LPG and renewable pellets, M0174 should more accurately reflect the emissions profile of charcoal production and combustion and allow PP's to convert charcoal into woody biomass equivalent with an appropriate wood-	

		to-charcoal conversion rate with a default of 6:1.	
431	C-Quest Capital	(cont'd from cell above) A 6:1 wood-to-charcoal conversation ratio is the former CDM default for wood-to-charcoal conversion. The PP should have the ability to replace the default with in country specific data determined by a testing regime that is in accordance with the “Standard for sampling and surveys for CDM project activities and programme of activities” and then apply the EF_CO2, EF_NONCO2 and NCV for woody biomass to the woody biomass equivalent amount.	Please refer to response to comment 430.
432	C-Quest Capital	(cont'd from cell above) Unfortunately, there is no evidence of the penetration of modern fuels in urban markets at rates that would suggest an abatement in charcoal demand. The use of alternative sustainable biomass fuels or modern energy cooking services (MECS), such as LPG and electricity, is negligible. [see chart directly to right] MECS adoption is less than 15% in African urban areas — constrained by foreign exchange and infrastructure — with few countries in SSA having reliable, low-cost electricity supply to urban areas.	It is our hope that this methodology and the voluntary carbon market will be able to play an even greater role in the expansion of modern energy cooking services
433	C-Quest Capital	It is not clear how "equivalent standard male adults" is calculated per the cited source: Guidelines for Woodfuel Surveys for FAO by Keith Openshaw, cited in Joseph, S. (1990). Guidelines for planning, monitoring and evaluating cookstove programmes, UNFAO: Community Forestry Field Manual 1.	The methodology refers to the primary source of information in order not to have inaccuracies.

		Can you please provide clarification on how this is calculated.	
434	BURN Manufacturing	The non-CO2 emission factor for Charcoal in the draft methodology is an applied value of 5.865 tCO2e/TJ. This value is derived from the IPCC Stationary Combustion report adjusted for AR 5 GWP data. This value however doesn't include upstream emissions from charcoal production and as such presents as significant under-crediting risk.	Upstream emission factor for charcoal has been included in the parameter table
435	BURN Manufacturing	The fNRB section implies that this methodology is not applicable before the UNFCCC default values are finalized/ published. If so, we would appreciate clarity on when this methodology will become operational, and what happens if it takes longer than 6 months for the UNFCCC defaults to be agreed. Note that the current use of fNRB undervalues the sequestration potential from clean cookstove projects. If there is a 40% fNRB, then 40% of the biomass saved in a cooking project generates ERs. But note that the remaining 60% of the biomass saved still represents trees that would have been cut in the baseline scenario, but can now continue to sequester carbon.	Please refer to response to comment 360
436	BURN Manufacturing	The methodology talks about the value of fnrb which needs to be aligned with the CDM default and procedures that are still under development. The CDM fnrb data can be default value, but if any recent data is	Please refer to response to comment 426

		available, then that value should take precedence. This is more important to ensure accuracy, region-specific values of fnrb. We recommend that any government body or not-for-profit institutions of repute within the regions/countries should be eligible for assessing the precise values of fnrb on a time-to-time basis. This evaluation should be based on thorough research and analysis of primary data so that they can obtain fnrb values that are specific to the regions/countries. This would help ensure the most accurate and appropriate fnrb value. By having a regional government body or institutions conduct this evaluation, it would be better equipped to understand the unique characteristics and needs of the regions/countries, which would allow for a more precise assessment of fnrb values w.r.t consumption, weather patterns, vegetation, and land use, which can influence the amount of carbon sequestered by forests. Therefore, it is essential to consider these unique characteristics to determine the most appropriate fnrb values for each region. Moreover, we propose this fNRB data be updated every 4 years to capture the latest scenario.	
437	BURN Manufacturing	The methodology should include a minimum thermal efficiency for baseline project devices of at least 15% as per CDM tool 33	Added.
438	BURN Manufacturing	Please add Kitchen Performance Tests as a means of determining the specific energy consumption ratio.	Please refer to response to comment 326

439	BURN Manufacturing	As noted above, Option 2 - the back calculation of baseline fuel consumption using efficiency ratios - causes over-crediting in biomass projects and under-crediting in electric projects. It is therefore not an appropriate conservativeness cap for biomass projects. We recommend that all projects be required to undertake KPTs to establish baseline fuel consumption. Please ensure this option is available to all electric devices (including electric pressure cookers and induction cookers noted under 8.1.1.3) If the back-calculated baseline is retained (Option 2) we strongly recommend a cap on back-calculated baseline fuel consumption numbers. Please see wording and caps from TPDDTEC v4.0, page 37.	Please refer to response to comment 323
440	TASC	The non-CO2 emission factor for Charcoal in the draft methodology is an applied value of 5.865 tCO2e/TJ. This value is derived from the IPCC Stationary Combustion report adjusted for AR 5 GWP data. This value however doesn't include upstream emissions from charcoal production and as such presents as significant under-crediting risk.	non CO2 emission factor including charcoal production has been included in parameter table
441	TASC	The fNRB section implies that this methodology is not applicable before the UNFCCC default values are finalized/ published. If so, we would appreciate clarity on when this methodology will become operational, and what happens if it takes longer than 6 months for the UNFCCC	To use TOOL 30 as an alternative option to UNFCCC default values has been added We don't have specific information about when UNFCCC default values will be available

		defaults to be agreed. Also, what if there is no UNFCCC value for the specific country or region? Would this exclude a project from being implemented?	
442	TASC	The methodology talks about the value of fnrb which needs to be aligned with the CDM default and procedures that are still under development. The CDM fnrb data can be default value, but if any recent data is available, then that value should take precedence. This is more important to ensure accuracy, region-specific values of fnrb. We recommend that any government body or not-for-profit institutions of repute within the regions/countries should be eligible for assessing the precise values of fnrb on a time-to-time basis. This evaluation should be based on thorough research and analysis of primary data so that they can obtain fnrb values that are specific to the regions/countries. This would help ensure the most accurate and appropriate fnrb value. By having a regional government body or institutions conduct this evaluation, it would be better equipped to understand the unique characteristics and needs of the regions/countries, which would allow for a more precise assessment of fnrb values w.r.t consumption, weather patterns, vegetation, and land use, which can influence the amount of carbon sequestered by forests. Therefore, it is essential to consider these unique characteristics to determine the most appropriate fnrb values for each region.	To use TOOL 30 as an alternative option to UNFCCC default values has been added By using TOOL 30 region/country specific characteristics are considered

443	TASC	The methodology should include a minimum thermal efficiency for baseline project devices of at least 15% as per CDM tool 33	Please refer to response to comment 437
444	TASC	Please add Kitchen Performance Tests as a means of determining the specific energy consumption ratio.	Nort considered. Refer to response to comment 326
445	TASC	As noted above, Option 2 - the back calculation of baseline fuel consumption using efficiency ratios - causes over-crediting in biomass projects and under-crediting in electric projects. It is therefore not an appropriate conservativeness cap for biomass projects.	Please refer to response to comment 323
446	DelAgua	There needs to be an alternative to Bailis fNRB numbers as these are not yet agreed by UNFCCC or Host Countries. An alternative calculation is needed - we propose Tool30 v4.	Option of utilizing TOOL 30 has been added considering an uncertainty value
447	DelAgua	Please could the evidence to change the default to 0.15 be provided for all Project Developers. This figure is very different to other academic sources for baseline stove efficiency.	It is outside the scope of the methodology. This information should be reviewed with the history of changes in the tool, in agreement with the CDM Executive Board (EB).
448	Eni S.p.A.	For parameters EFb,i,CO2 - EFp,i,CO2 - EFfuel,i add the possibility to evaluate specific charcoal emission factor which is higher of methodology default (possibly include methodology cap of 197.15 tCO2e/TJ (AR5 GWP) which includes charcoal production emissions)	IPCC default values are established as the source for charcoal emission factor including combustion and production
449	Eni S.p.A.	For parameters EFb,i,nonCO2 - EFp,i,nonCO2 include the possibility to consider Charcoal default value of 44.83 tCO2e/TJ (AR5 GWP) for combustion and charcoal production	Please refer to response to comment 323

		emissions, to be applied when non-renewable biomass charcoal is used in the baseline, or in the baseline and project Maintain default value of 5.865 tCO2e/TJ (AR5 GWP) for combustion only	
450	Eni S.p.A.	For parameters EFb,i,nonCO2 - EFp,i,nonCO2 add the possibility to evaluate specific charcoal emission factor which is higher of methodology default (possibly include a methodology cap of 92.29 tCO2e/TJ (AR5 GWP) which includes charcoal production emissions)	Please refer to response to comment 440
451	Eni S.p.A.	Regarding the evaluation of fNRB,b,i,y parameter, it shall be maintained the possibility of calculating project specific fNRB values using TOOL30 (possibly new version including proposed changes as for information note document CDM-MP92-A07).	Option of utilizing TOOL 30 has been added considering an uncertainty value
452	Eni S.p.A.	In calculation of BCb,y,i,j parameter, it shall be specified that the conservative cap calculated through option 2 shall only be based on ηnew,i,j at year 0.	Please refer to response to comment 323
453	University of California, Berkeley	Emissions factors from Floess et al. (2023) should be used for project and baseline fuels when available. They provide the most advanced assessments to date. See https://iopscience.iop.org/article/10.1088/1748-9326/acb501/	Nort considered. IPCC default values are used
454	University of California, Berkeley	For fNRB (fraction of non-renewable biomass) we recommend that developers use the most updated scientific assessments of fNRB and the highest level of granularity that is possible (district over state or country). Today those are	It has been established for the methodology that fNRB must be Determined using one of the following options: - Use a default value included in a standard approved by the United Nations Framework Convention on Climate Change (UNFCCC) Clean Development Mechanism or the Paris

		MoFuSS, and where MoFuSS values are not yet available, they are Bailis et al. (2015). A conservative 30% figure can be used if MoFuSS and Bailis et al. figures are not available.	Agreement Crediting Mechanism. - fNRB value as per CDMTOOL30
455	AGS Carbon Advisory	EFnonCO2 for charcoal is missing for productions	non CO2 emission factor including charcoal production has been included in parameter table
456	AGS Carbon Advisory	For parameter fNRB, currently it is mentioned it will be aligned with CDM default value however, the defaults currently are only for sub-Saharan African countries. What is a project is developed in Asia or Latin America? We would propose to add back the CDM tool 30 and the uncertainty adjustment which was there in VMR0006 v1.2. In the computation of fNRB, there should a provision for considering country specific wood-to-charcoal ratio, per capita wood/charcoal consumption per day from credible sources or research studies including PPs own measured analysis. This is in accordance with the latest “Standard for sampling and surveys for CDM project activities and programme of activities” for establishing the country/regional-specific fNRB value.	Option of utilizing TOOL 30 has been added considering an uncertainty value
457	Project Developer Forum	The non-CO2 emission factor for Charcoal in the draft methodology is an applied value of 5.865 tCO2e/TJ. This value is derived from the IPCC Stationary Combustion report adjusted for AR 5 GWP data. This value however doesn’t include upstream emissions from	Please refer to response to comment 440

		charcoal production and as such presents as significant under-crediting risk.	
458	Project Developer Forum	The fNRB section implies that this methodology is not applicable before the UNFCCC default values are finalized/ published. If so, we would appreciate clarity on when this methodology will become operational, and what happens if it takes longer than 6 months for the UNFCCC defaults to be agreed Project developers should be allowed to use Tool 30 v4 as an alternative to the UNFCCC defaults	Option of utilizing TOOL 30 has been added considering an uncertainty value
459	Project Developer Forum	The methodology talks about the value of fnrb which needs to be aligned with the CDM default and procedures that are still under development. The CDM fNRB data can be the default value, but if any recent data is available, then that value should take precedence. This is more important to ensure accuracy, region-specific values of fNRB. We recommend that any government body or not-for-profit institutions of repute within the regions/countries should be eligible for assessing the precise values of fNRB on a time-to-time basis. This evaluation should be based on thorough research and analysis of primary data so that they can obtain fNRB values that are specific to the regions/countries. This would help ensure the most accurate and appropriate fNRB value. By having a regional	It has been established for the methodology that fNRB must be Determined using one of the following options: - Use a default value included in a standard approved by the United Nations Framework Convention on Climate Change (UNFCCC) Clean Development Mechanism or the Paris Agreement Crediting Mechanism. - Calculate a fNRB value as per CDMTOOL30, which can rely on data from not-for-profit institutions of repute within the regions/countries

		government body or institutions conduct this evaluation, it would be better equipped to understand the unique characteristics and needs of the regions/countries, which would allow for a more precise assessment of fNRB values w.r.t consumption, weather patterns, vegetation, and land use, which can influence the amount of carbon sequestered by forests. Therefore, it is essential to consider these unique characteristics to determine the most appropriate fnrb values for each region.	
460	Project Developer Forum	The methodology should include a minimum thermal efficiency for baseline project devices of at least 15% as per CDM tool 33	Not agreed. The idea is to rely on KPT measurements which reflect the efficiency of the baseline device. Without measuring efficiency per se. Therefore, this comment will not be relevant to the methods used in the methodology
461	Project Developer Forum	Please add Kitchen Performance Tests as a means of determining the specific energy consumption ratio.	Nort considered. Refer to response to comment 326
462	Project Developer Forum	As noted above, Option 2 - the back calculation of baseline fuel consumption using efficiency ratios - causes over-crediting in biomass projects and under-crediting in electric projects. It is therefore not an appropriate conservativeness cap for biomass projects. We recommend that all projects be required to undertake KPTs to establish baseline fuel consumption. Please ensure this option is available to all electric devices (including electric pressure cookers and induction cookers noted under 8.1.1.3)	Back- calculation as an option to determinate baseline emissions was removed so that direct measurement through KPT is encouraged, however the back calculation results are used as a conservative cap in case baseline KPT results are higher

		If the back-calculated baseline is retained (Option 2) we strongly recommend a cap on back-calculated baseline fuel consumption numbers. Please see wording and caps from TPDDTEC v4.0, page 37.	
463	EcoSafi	For fNRB (fraction of non-renewable biomass) we recommend that developers use the most updated scientific assessments of fNRB and the highest level of granularity that is possible. A conservative 30% figure can be used if MoFuSS and Bailis et al. figures are not available.	Option of utilizing TOOL 30 has been added considering an uncertainty value
464	Anonymous 7	Verra must ensure a fair and just transition to this new methodology. It is important to note that projects move ahead with certain expectations of crediting volumes, etc. which inform investment decisions. Certain proposals under this new methodology, namely the use of newly-developed fNRB values, will have significant impact on the crediting potential of projects. We applaud the transition to more conservative values, though this transition must be done in a thoughtful and appropriate manner that does not ultimately negate the hard work and significant investment incurred by projects that have already been initiated. We propose that projects at least be able to complete their crediting periods before being required to transition to the new methodology, as is consistent with how Verra has handled methodology transitions in the past. We recommend that Verra conduct further consultation on its proposed expectations for the timelines along which projects will be expected to transition to this new methodology	Noted

		so that project developers have sufficient advance notice. We also strongly recommend that Verra ensure that after this new methodology is published, that it not be revised for a significant number of years. There have been a number of quickly-published revisions to Verra methodologies of late, which is disruptive to the market.	
465	Anonymous 7	Verra must make clear how fNRB must be calculated where CDM has not yet published a value for a particular country. Verra highlights that consultation values for Sub-Saharan Africa have been presented, though if CDM is slow to adopt values for other countries, project developers cannot simply sit idle until such values are published. Verra must provide explicit guidance on how projects must calculate fNRB in the absence of a new CDM value. We would recommend that such projects be able to apply existing tools for determining fNRB.	To use TOOL 30 as an alternative option to UNFCCC default values has been added
466	Anonymous 7	Under the instructions for 'source of data' for parameter BCb, again it is not clear what "using the ratio of efficiencies as a conservative cap" means. Please refer to detailed comments above re: this same point.	Refer to response to comment 362
467	Aera Group	The fNRB section implies that this methodology is not applicable before the UNFCCC default values are finalized/ published. If so, we would appreciate clarity on when this methodology will become operational, and what happens if it takes longer than 6 months for the UNFCCC defaults to be agreed	To use TOOL 30 as an alternative option to UNFCCC default values has been added We don't have specific information about when UNFCCC default values will be available

468	Aera Group	Could you clarify whether BCb can be evaluated using option 2, which is based on BCp and the baseline/project efficiency ratio, but on page 18, the BCp evaluation refers mainly to KPT, which means that KPT or the use of sensors is practically mandatory?	Please refer to response to comment 323

Section 9.2 - Data and Parameters Monitored

Section 9.2 - Data and Parameters Monitored			
#	Organization	Comment	Developer's Response
469	Verra	Data parameter table- ηnew,i,j,y- The methodology allows minimum efficiency of biomass devices to be 25% and that of fossil fuel devices to be 30%. How can then PP be allowed to reach a terminal efficiency of 20% applying linear loss rate?	Clarified that these are the minimum *initial* thermal efficiencies, such that 20% is the efficiency at the end of the life span of the project device considering a linear efficiency loss.
470	Verra	Data parameter table- TDLi,y- this value is not calculated as mentioned in the table. As per Tool 05 it is either default or based on host country published data.	The measurement method for this variable was changed. It must be determined using Verra's Tool to calculate emissions from electricity consumption.
471	Envirofit	The SUM device no longer working should not automatically create the case that the cookstove stopped working. SUMS are a relatively new technology and are prone to reliability issues	Noted

472	Envirofit	The device not working at the time of survey should not create the assumption that it has not been in use for the total time since the last survey. If it can be determined by survey questions when the device either stopped working or the customer discontinued use of the stove that data should be used to set the time of last use of the stove.	Noted; however, this assumption continues to be applied since it is conservative and straightforward to verify.
473	Envirofit	The benchmark of 0.0045GJ per capita per day will work for households but not for community-based kitchens, institutions (e.g., schools, hospitals) or small and medium-sized enterprises (SMEs). Alternative methods should be outlined for these cases. Also it is not clear if the 0.0045GJ benchmark, is energy usage (total) or energy delivered to the pot for cooking, where the project device thermal efficiency will play a large role.	The reference value has been eliminated and other cross-check methods are retained.
474	Modern Energy Cooking Services programme	The parameter detail for ECp,y,i,j in 'comments' states that the emissions must be reduced if the backup generator use is >1%...but the earlier eligibility requirements are that only projects with <1% are allowed…?	The clarification made in the parameter table is to provide guidance on how to discount the project emission reductions in case of exceeding this threshold during the project operation.
475	C-Quest Capital	The source for the reference value of 0.0045 GJ per capita per day for comparison with the parameter BCp,y,i,j was found missing in the proposed methodology.	Please refer to response to comment 473

		How does this value hold good for all the countries? Comparative countrywise results from CIA and other relevant sources shows higher reference value of "Energy per capita per day" (https://www.cia.gov/the-world-factbook/field/energy-consumption-per-capita/country-comparison/ https://ourworldindata.org/grapher/per-capita-energy-use)	
476	C-Quest Capital	Option 1: Kitchen Performance Test (only for cookstoves), PP should be allowed to choose between Biennial (with higher confidence/precision say 95/10) or Annual (with 90/10 confidence/precision) monitoring frequency for the parameter BCp,y,i,j in accordance with the “Standard for sampling and surveys for CDM project activities and programme of activities”	Biennial monitoring frequency for this parameter has been included since it is a main driver of the project emissions reductions.
477	C-Quest Capital	Parameter ηnew,i,j,y for devices using biomass or fossil fuel, "A linear decrease approach, applying a default schedule of linearly decreasing efficiency up to the terminal efficiency (assumed to be 20 percent) through the life span of the project device". 1. It is not clear why 20% efficiency has been considered for the linear decrease approach as the minimum efficiency requirements under the proposed methodology for projects to be eligible has	It is clarified that the minimum efficiency requirement is for the beginning of the lifespan of the project device; however, efficiency may decrease over time. In case of not being able to measure the efficiency changes, then the option of considering a linear decrease and final efficiency of 20% is given.

		been kept at 25%. The linear decrease in efficiency should be till 25% (minimum required efficiency for project device). 2. How can PP claim credits in case the efficiency of the project device falls below 25% before the end of the crediting period?	
478	C-Quest Capital	For determination of usage rate using surveys method (Option 2), the usage survey must include: 1) Kitchen observation; and 2) Interview with the primary cook. Now, in case if the sample ICS are operated regularly with no other cooking device in the HH, but occasionally the user visits its relatives for food then will that ICS be considered to be in active use?	This type of situation may be described in project documentation and subject to verification.
479	C-Quest Capital	The source for the reference value of 1 kWh per capita per day for comparison with the parameter ECp,y,i,j was found missing in the proposed methodology. How does this value hold good for all the countries? Comparative countrywise results from CIA and other relevant sources shows higher reference value of "Energy per capita per day" (https://www.cia.gov/the-world-factbook/field/energy-consumption-per-capita/country-comparison/	Please note energy per capita per day is not equivalent to cooking energy. Please refer to response to comment 473

		https://ourworldindata.org/grapher/per-capita-energy-use)	
480	C-Quest Capital	The Uncontrolled Cooking Test (UCT) should be included as a testing protocol to determine the thermal efficiency of a baseline device (ηold parameter). The objective of the UCT is to evaluate the in-field ("Real-World") thermal efficiency of a cookstove during uncontrolled cooking or the natural meal types and quantities that are cooked in a household on a given day. Testers should visit a household and plan to measure whatever meal is being cooked at the time of the visit. Breakfast, lunch, and dinner should be monitored. This means that by measuring thermal efficiency through UCETs, the final calculated result is the combined thermal efficiency of the stove and the dish that was cooked. This new method for thermal efficiency will provide better information as it more accurately reflects the cooking habits of each region. By measuring the sensible energy change of each ingredient in a dish, the total energy captured by the food can be calculated instead of the total energy that could potentially be used (i.e Water Boiling Test).	Considering the uses of device efficiency in the methodology (minimum efficiency levels, cross-checking sampled fuel use), the WBT is considered adequate.

		By allowing household members to extinguish the fire how they would normally do, the efficiency metric may also change. Measuring the weight of the charcoal and wood after the household's representative shutdown/smoldering procedure will result in capturing the actual energy consumed instead of the minimum energy consumption when the remaining fuel and charcoal are measured immediately at the end of the cooking process (i.e. Water Boiling Test).	
481	BURN Manufacturing	Please add a requirement for projects that collect fuel sales data, or which sell fuel, to use this to determine usage rates, rather than a usage survey	Fuel monitoring is considered a separate objective from project device usage monitoring.
482	BURN Manufacturing	Please align sampling requirements for usage surveys with ratings agencies who have previously said that PD samples "feel too small"	Sampling must apply standard statistical practices for defining sample size.
483	BURN Manufacturing	The assumption that the date on which the SUM ceased registering activity is the day the device stopped working is erroneous, as it does not consider that it may be a field issue that may need repair or a GSM failure	Noted and monitoring plans using SUMs may take this into account in their design and ongoing implementation.
484	BURN Manufacturing	Note comments above on measurement of project fuel consumption	Noted.

485	BURN Manufacturing	Clarity is required on the method used to determine the threshold for project fuel consumption and where the value of 0.0045 GJ is applicable to all projects types in the draft methodology , or whether it is limited to electric projects. This cross check threshold value out to be substantiated with a similar threshold for baseline fuel consumption as well, if it is a directive for all ICS projects.	Please refer to response to comment 473
486	BURN Manufacturing	The emission factor of the electricity system should be determined using the harmonized grid emission defaults from UNFCCC IFI TWG - Harmonized IFI Default Grid Factors 2021 v3.2	It will be determined using VCS tool to calculate emissions from electricity consumption (draft).
487	BURN Manufacturing	The average technical transmission and distribution losses for providing electricity to devices should have a default figure - we propose the 20% default value as per CDM Tool 05, with the applicable defaults (3%) from the same tool for mini grids depending on the electricity sourced used for project electricity consumption.	It will be determined using VCS tool to calculate emissions from electricity consumption (draft).
488	BURN Manufacturing	Ny,I,j it is not possible to provide identification documents for public consumption under data protection legislation; there is no legitimate interest in disclosing personal identifying information outside of VERRA and the VVB. For certain projects, data has been publicly disclosed by the project	Monitoring plans, data management and reporting must take into account data privacy requirements and good practice; added to methodology.

		developer/VERRA on the project registry page and there should be a process to prevent such data breaches.	
489	BURN Manufacturing	All stoves should be required to have unique identifiers that are affixed onto the stove at distribution/sale. It should then be required to cross reference the stove at monitoring to the stove initially provided. In the current form it is too easy to re-add identification throughout the crediting period e.g. by having a paper slip).	Agreed, this was the intention. It has been incorporated in the methodology explicitly.
490	BURN Manufacturing	Monitoring should all be done using a smart device (phone or tablet) rather than paper copies which are easily manipulated.	Flexibility is maintained for a variety of activity circumstances.
491	Anonymous 3	• Frequency of conducting KPTs amended from the current annual to biennial	Biennial monitoring frequency for this parameter has been included since it is a main driver of the project emissions reductions.
492	Anonymous 3	All the monitored parameters are together, can they be separated based on the technology to avoid confusion?	The same parameter for different technologies may be reported separately using different subscripts for clarity.
493	Climate Solutions Consulting	ny,i,j: Survey are not an accurate way to measure stove usage. They are subject to courtesy and recall bias and should be removed from the meth to preserve its environmental integrity. SUMs are now affordable and reliable and can measure directly how many days the project stove is used at least once. This align very well with the	SUMs are included for this purpose and where survey results are used they must apply an uncertainty discount.

		KPT where daily fuel consumption are established for baseline and project. We thus recommend to use SUMs to measured continuously the number of days the project is used. The metric would be usage intensity calculated for each household like so Usage Intensity = Number of day the stove is used at least once/Total number of day monitored by SUMs	
494	Climate Solutions Consulting	BCp,y,I,j: same remark as above (section 8.2). KPT measure fuel consumption at the household level.SUMS and lab based fuel consumption rate won't provide accurate measurement. Instead use a SUMs on project stove during KPT and derive project fuel consumption at the household level for the days the project stove is actually used as per the SUMS measurement(kg of fuel/day/HH) We recommend the project KPT to be done only once. There are diminishing return in doing it every year and it is quite costly to implement. Monitoring resource are best spent on SUMs continuously monitoring project stove usage.	Fuel consumption rate method has been removed.
495	Climate Solutions Consulting	ty,i,j: Equation 9 applies only to electric device, but the description of the parameter is inconsistent and seems to be applicable to cookstove.	Noted.

496	TASC	The assumption that the date on which the SUM ceased registering activity is the day the device stopped working is erroneous, as it does not consider that it may be a field issue that may need repair or a GSM failure	Noted and monitoring plans using SUMs may take this into account in their design and ongoing implementation.
497	DelAgua	All stoves should be required to have unique identifiers that are affixed onto the stove at distribution/sale. It should then be required to cross reference the stove at monitoring to the stove initially provided. In the current form it is too easy to re-add identification throughout the crediting period 9e.g. by having a paper slip).	Agreed, this was the intention. It has been incorporated in the methodology explicitly.
498	DelAgua	Monitoring should all be done using a smart device (phone or tablet) rather than paper copies which are easily manipulated.	Flexibility is maintained for a variety of activity circumstances.
499	DelAgua	To calculate usage option 1 should not be preferred until further guidance is provided to assist Project Developers.	Where survey results are used they must apply the lower bound of the 90 percent confidence interval.
500	DelAgua	The usage questionnaire in Appendix 3 should be a requirement if usage is being calculated. We welcome these changes.	Noted.
501	Eni S.p.A.	Regarding the evaluation of fNRB,p,i,y parameter, is not clear which is the required estimation frequency (i.e. possibly to fix ex ante = to fNRB,b,i,y?).	Guidance on the frequency for determining fNRB has been added

		It shall be maintained the possibility of calculating project specific fNRB values using TOOL30 (possibly new version including proposed changes as for information note document CDM-MP92-A07).	
502	University of California, Berkeley	When usage is determined with a KPT, adoption rates should be assumed to equal 58% as documented in the literature, or a robust longitudinal study should be used (please see our specific recommendations for conducting a non-biased survey).	"Usage" in the methodology relates to what is called "adoption" in the comment. Adoption rates are determined using SUMs or a survey and applying the lower bound of the 90 percent confidence interval.
503	Anonymous 8	For said parameter "EFel,y", which refers to the Emission factor of the electricity system in year y, the methodology only mentions using TOOL05 to determine the aforementioned parameter. UNFCCC Harmonized grid factor released in 2021 should be added as an option here for the same.	It will be determined using VCS tool to calculate emissions from electricity consumption (draft).
504	AGS Carbon Advisory	For measuring the average quantity of fuel used by project device type i from batch j, in option 1 (KPTs for cookstoves), there should be two options as far as monitoring frequency is concerned : 1) Biennial (with higher confidence/precision say 95/10) OR Annual (with 90/10 confidence/precision). This is also in accordance with the “Standard for sampling and surveys for CDM project	Clarified.

		activities and programme of activities" Also, for option 1 (KPT for cookstoves), the monitoring frequency is not stated explicitly, as is done for other options. It will be good if the methodology also clarifies the frequency of monitoring the parameter if option 1 is chosen.	
505	AGS Carbon Advisory	Since the minimum efficiency requirement in the methodology is prescribed to be 25% (Section 4 Applicability Conditions pt 10), it is not clear why 20% efficiency has been considered for the linear decrease approach. Additionally, it is not clear how the credits for emission reductions can be claimed in case the efficiency drops below 25% before the end of the crediting period.	It has been clarified that the 25% efficiency is the minimum starting efficiency for a new stove (which is expected to deteriorate during the life of the project).
506	Project Developer Forum	Please add a requirement for projects that collect fuel sales data, or which sell fuel, to use this to determine usage rates, rather than a usage survey	Fuel monitoring is considered a separate objective from project device usage monitoring.
507	Project Developer Forum	Suggest change to wording: The project proponent must provide proof of training and supervision to ensure field teams have the capacity required to complete usage surveys successfully.	Incorporated.
508	Project Developer Forum	Please align sampling requirements for usage surveys with ratings	Sampling must apply standard statistical practices for defining sample size.

		agencies who have previously said that PD samples "feel too small"	
509	Project Developer Forum	The assumption that the date on which the SUM ceased registering activity is the day the device stopped working is erroneous, as it does not consider that it may be a field issue that may need repair or a GSM failure	Noted and monitoring plans using SUMs may take this into account in their design and ongoing implementation.
510	Project Developer Forum	Note comments above on measurement of project fuel consumption	Noted.
511	Project Developer Forum	Clarity is required on the method used to determine the threshold for project fuel consumption and where the value of 0.0045 GJ is applicable to all projects types in the draft methodology, or whether it is limited to electric projects. This cross check threshold value ought to be substantiated with a similar threshold for baseline fuel consumption as well, if it is a directive for all ICS projects. Note that while 0.0045 GJ per capita per day might appear to be relatively low, as it converts to 0.25 tonnes/person/year in the baseline. However, according to TOOL33, the default baseline consumption is 0.4 tonnes/person/year. To align with this baseline consumption of 0.4 tonnes/person/year, the value of 0.0045 GJ per capita per day needs to	Please refer to response to comment 473

		be increased to 0.00705 GJ per capita per day.	
512	Project Developer Forum	The emission factor of the electricity system should be determined using the harmonized grid emission defaults from UNFCCC IFI TWG - Harmonized IFI Default Grid Factors 2021 v3.2	It will be determined using VCS tool to calculate emissions from electricity consumption (draft)
513	Project Developer Forum	The average technical transmission and distribution losses for providing electricity to devices should have a default figure - we propose the 20% default value as per CDM Tool 05, with the applicable defaults (3%) from the same tool for mini grids depending on the electricity sourced used for project electricity consumption.	It will be determined using VCS tool to calculate emissions from electricity consumption (draft)
514	Project Developer Forum	Ny,I,j it is not possible to provide identification documents for public consumption under data protection legislation; there is no legitimate interest in disclosing personal identifying information outside of VERRA and the VVB. For certain projects, data has been publicly disclosed by the project developer/VERRA on the project registry page and there should be a process to prevent such data breaches. Additionally, standards bodies should increase efficiency in the verification process by providing training and capacity building for VVBs, thereby increasing the level of trust in VVBs by	Requirements on data privacy have been added.

		the standards bodies. Often, comments from GS and VERRA at verification are duplicative and don't reflect reality in the field, which lengthens and complicates the verification process.	
515	Project Developer Forum	All stoves should be required to have unique identifiers that are affixed onto the stove at distribution/sale. It should then be required to cross reference the stove at monitoring to the stove initially provided. In the current form it is too easy to re-add identification throughout the crediting period 9e.g. by having a paper slip).	Agreed, this was the intention. It has been incorporated in the methodology explicitly.
516	Project Developer Forum	Digital collection methods such as use of smart phones or tablets should be promoted as the most robust, encouraging PDs to use digital surveying wherever possible, except in extenuating circumstances	Flexibility is maintained for a variety of activity circumstances.
517	EcoSafi	Please add a requirement for projects that collect fuel sales data, or which sell fuel, to use this to determine usage rates, rather than a usage survey. The use of averages for fuel switch projects that have sales use data makes no sense.	Fuel monitoring is considered a separate objective from project device usage monitoring.
518	Anonymous 7	Under the instructions for 'source of data' for parameter BCp, it is not clear how "Option 3: direct measurement" is distinct from "Option 1: KPT". It would be useful if Verra could provide additional guidance as to what constitutes a direct measurement	Clarified.

		approach and provide examples of same.	
519	Anonymous 7	The detailed instructions for determining ηnew,i,j,y state that one option for determining the loss in thermal efficiency of project devices is to assume "A linear decrease approach, applying a default schedule of linearly decreasing efficiency up to the terminal efficiency (assumed to be 20 percent) through the life span of the project device". More guidance is required to understand this requirement; it is not clear how the year-on-year loss in efficiency value should be determined, nor is it clear what it means to assume "linearly decreasing efficiency up to the terminal efficiency (assumed to be 20 percent)".	It has been clarified that the 25% efficiency is the minimum starting efficiency for a new stove (which is expected to deteriorate during the life of the project).
520	Anonymous 7	It is not clear why fNRB is restated as a parameter to be monitored/measured under this section. fNRB should be the same for both the baseline and project scenarios for each monitoring period. We recommend Verra make this explicit to avoid confusion. We also strongly suggest that Verra conduct a further stakeholder consultation once it has elaborated on its approach to fNRB re: the ongoing CDM developments. This parameter obviously has potentially significant impacts on the crediting volumes of	Clarified.

		projects and no approach can be instituted without stakeholder input.	
521	Aera Group	From page 18 it seems that online values/bibliographic values are no more accepted and that baseline surveys are mandatory? What about recent available data from country or research? Also baseline quantity is to be compared with 0,0045GJ per/capita/day which can be as low as 102 kg of firewood/capita/year? Almost 5 times lower than previous value of 500 kg/cap/year	Please refer to response to comment 473

Section 9.3 - Description of the Monitoring Plan

Section 9.3 - Description of the Monitoring Plan			
#	Organization	Comment	Developer's Response
522	C-Quest Capital	The minimum confidence and precision must be 90/10 and a minimum sample size of 30 must be applied. 1. The methodology is not clear if PP can now consider higher confidence/ precision say 95/10 or 95/5 2. Is higher confidence/precision allowed in the proposed Methodology	The 90/10 confidence and precision level is provided as a minimum requirement. Higher values are allowed

		or any justifications would be needed in case the PP applies for a higher confidence/precision level as this may lead to an increase in the sample size? Will this be considered a potential oversampling? Proper clarity should be provided in the revised methodology on the same.	
523	DelAgua	Ny,I,j it is not possible to provide identification documents for public consumption under data protection legislation; there is no legitimate interest in disclosing personal identifying information outside of VERRA and the VVB. For certain projects, data has been publicly disclosed by the project developer/VERRA on the project registry page and there should be a process to prevent such data breaches.	Requirements on data privacy have been added.
524	Anonymous 8	The sampling sub-section in section 9.3: Description of monitoring plan, as opposed to the older methodology, minimum sample size requirements as per population size are not mentioned.	Sampling must apply standard statistical practices for defining sample size.
525	Aera Group	"Ownership of the emission reductions resulting from the project activity must be clearly communicated by contract or clear written assertions in the transaction	Digital means are accepted. It is recommended to have a signature or similar that ensures transparency

		paperwork to all involved parties. Users must be notified that they are not permitted to claim emission reductions from the project.". Can you clarify if digital contract/signature are accepted or if they need to be paper based mandatory? In case where digital contracts are accepted can digital check/cross acceptable as a signature i.e the end-user can acknowledge the terms of contract by ticking a button on kobo toolbox ?	

Appendix 1: Thermal Efficiency Performance Thresholds

Appendix 1: Thermal Efficiency Performance Thresholds			
#	Organization	Comment	Developer's Response
526	BURN Manufacturing	Please clarify whether stoves will be excluded on the basis of PM2.5 and CO emission scores under the ISO 19867 test protocol, or only be evaluated on thermal efficiency and durability.	The intention is to qualify cookstoves on the basis of thermal efficiency and durability, only, since furthermore, efficiency should be correlated with PM2.5 and CO. It was made explicit in the methodology.
527	BURN Manufacturing	Please note that the ISO 19867 test protocol is for evaluating biomass stoves, not electric stoves. Electric appliances safety can only be	Please refer to response to comment 260

		evaluated per the IEC 60335-2-6 standard	
528	TASC	Please clarify whether stoves will be excluded on the basis of PM2.5 and CO emission scores under the ISO 19867 test protocol, or only be evaluated on thermal efficiency and durability.	The intention is to qualify cookstoves on the basis of thermal efficiency and durability, only, since furthermore, efficiency should be correlated with PM2.5 and CO. It was made explicit in the methodology.
529	Project Developer Forum	Please clarify whether stoves will be excluded on the basis of PM2.5 and CO emission scores under the ISO 19867 test protocol, or only be evaluated on thermal efficiency and durability.	The intention is to qualify cookstoves on the basis of thermal efficiency and durability, only, since furthermore, efficiency should be correlated with PM2.5 and CO. It was made explicit in the methodology.
530	Project Developer Forum	Please note that the ISO 19867 test protocol is for evaluating biomass stoves, not electric stoves. Electric appliances safety can only be evaluated per the IEC 60335-2-6 standard	Please refer to response to comment 260

Appendix 3: Binding Survey Questionnaire

Appendix 3: Binding Survey Questionnaire			
#	Organization	Comment	Developer's Response
531	Verra	Table 1.4- There is a possibility that a question on meals prepared 'last	Further clarity regarding this issue is provided in the footnote.

		week' could give higher or lower results as if there were celebrations or festivals the number of meals reported would be higher than usual and if the family went out then it would give lower than normal meals. I feel a more appropriate question could be "on any given day how many meals do you prepare", "Do you prepare same number of meals each day of the week". the two can be multiplied to give average meals per week that the household cooks.	
532	Verra	The survey questionnaire does not include questions on seasonal variation. For some project locations, there is marked difference in wet and dry season fuel consumption.	Further clarity regarding this issue is provided in the methodology.
533	Verra	Question 1.4.1-Based on my experience, I think only a handful of households will be able to answer this question. The usual practice is to buy bundles/bags/cylinders/canisters of wood, charcoal, LPG and kerosene respectively and these are often standardized in quantity across a given region. So what households will usually tell you is how many bundles of wood or bags of charcoal or cylinders of LPG or canisters of kerosene they used in a week or a month which can be extrapolated to get yearly consumption data.	Footnote to this question indicates that other units can be used (for example bundles/bags/cylinders/canisters) as long as the project proponent provides guidelines for how to convert the reported values to required units (mass or volume

534	Verra	Question 2.3-If the project and baseline stoves are being used concurrently, we might get a similar number for both. It will be difficult to reach any conclusion in this case. However, If we break it down day wise and ask households about meals prepared using baseline/project stoves in a day and whether baseline is used exclusively to prepare any meal or is used concurrently with project stove then analysis will be easier.	The questions in this section primarily seek to clarify if the project stove is being used regularly, or not. No change needed.
535	C-Quest Capital	The binding questionnaire to record for household fuel consumption pattern prior to project implementation, asking to describe the ways in which the stove was used last week. The above question is required to be elaborated for a better understanding of its purpose.	Clarified.
536	C-Quest Capital	Under section 1.4.2 Fuel sources, What should be recorded for source or location of fuel in case it is purchased? Say, If the wood/charcoal is purchased from the local market or vendor, then will the source of fuel be the local market or should be its source of origin?	As much information as possible shall be provided in this section. If the source of origin is know, it must be provided

537	BURN Manufacturing	Given the publication of Gill-Wiehl et al.'s paper criticizing cookstove methodologies, and particularly outlining the survey biases, please can we ensure that this survey is more robust?	Project proponents are invited to contract independent, third parties to undertake the surveys as a means to improve robustness of the surveying.
538	BURN Manufacturing	Question 1.3 should differentiate between a 3 stone fire (efficiency ~15%) and a basic charcoal stove - e.g. a Kenyan ceramic jiko, or a bucket stove (efficiency ~25%)	3-stone fire and basic charcoal stoves were differentiated in Question 1.3 of Appendix 3
539	TASC	Question 1.3 should differentiate between a 3 stone fire (efficiency ~15%) and a basic charcoal stove - e.g. a Kenyan ceramic jiko, or a bucket stove (efficiency ~25%)	3-stone fire and basic charcoal stoves were differentiated in Question 1.3 of Appendix 3
540	DelAgua	Please could it be elaborated what Appendix 3.1 is actually for? We would recommend KPTs to ascertain baseline over a survey as these are more accurate.	This is a binding survey questionnaire with the minimum requirements for the baseline survey used for the determination of baseline scenario. Baseline consumption is not determined through this survey but using one of the proposed options (measurement campaign for conducting KPT or baseline field test)
541	AGS Carbon Advisory	The questionnaire in Section 1.4.2 needs to clarify whether source or location of the fuel should be recorded in case it is purchased? For instance, if the charcoal is purchased by the households/ SME from the local market or vendor, then there needs to be a clarification on whether the source of charcoal would be the local market or the vendor.	Please refer to response to comment 536

542	Project Developer Forum	Question 1.3 should differentiate between a 3 stone fire (efficiency ~15%) and a basic charcoal stove - e.g. a Kenyan ceramic jiko, or a bucket stove (efficiency ~25%)	3-stone fire and basic charcoal stoves were differentiated in Question 1.3 of Appendix 3
543	Project Developer Forum	The clarity regarding the methods for the unique identification of the stoves should be made. The section 4 (page 8) of the methodology refers to the identification of the cookstoves e.g. with programme logo. The Appendix 3 (the binding survey format) however requires the stove ID number is to be indicated.	More clarity regarding identification of project devices has been included.
544	Project Developer Forum	Given the publication of Gill-Wiehl et al.'s paper criticizing cookstove methodologies, and particularly outlining the survey biases, please can we ensure that this survey is more robust?	Please refer to response to comment 537
545	Project Developer Forum	Please could it be elaborated what Appendix 3.1 is actually for? We would recommend KPTs to ascertain baseline over a survey as these are more accurate.	Please refer to response to comment 540