

## Feedback + questions from SWS methodology consultation

**Comment:** Does GS approve projects applying the CDM methodology AMS-III.AV?

**Response:** Yes, an eligible CDM methodology, for example, AMS III AV or AM0086 can be applied for GS registration.

**Comment:** What if there are no recent literature sources available for cross-checking? What is the validity of the field survey in these cases?

**Response:** The methodology provides multiple alternatives, including published literature to cross-check the survey results. The project developer may use other sources as listed in the methodology for each parameter. Further, it suggests the approaches to how the sources applied for cross-check should be assessed to take into account project location & context. Please refer to section 3.11 |General requirements for data and information sources for further details.

**Comment:** In many cases the baseline survey is done beforehand, in other words, at the time when the exact location of all the water access points may not yet been defined (for example, the exact location of the community borehole). In this kind of situation how the project developer can respect the requirement of "All households included in any baseline or project survey or sampling shall fall within the [1 km] [250 m] radius."?

**Response:** In the case of a baseline survey before the project starts, where water access point has not yet been defined, a proxy location may be justified to define the radius for households. At the first verification, demonstrate the extent to which the households included in the baseline survey overlap with the project households. The project may also update the users as per the actual location of water units at the time of 1<sup>st</sup> verification for units. Refer to parameter SWDS 1 for further guidelines.

**Comment:** No claim on SDG 6.1.1 "Proportion of population using safely managed drinking water services" cannot be made for projects for where the end-users are located > 250m? Even if the water quality is proven to be ok at household level?

**Response:** The methodology allows claims to SDG 6.1.1 and other contributions. However, the projects should provide information and identify the relevant monitoring parameters as outlined in the new methodology. (Refer to parameter SDWS 19)

**Comment:** In case of baseline being charcoal use, can emission factors of wood be always multiplied with wood-to-charcoal factor to count the impact of charcoal?

**Response:** This approach is eligible under current methodology. The new methodology provides default emission factors for charcoal production from recent IPCC publications, and hence there is no need to apply charcoal to wood conversion approach any more.

**Comment:** In case of the registered projects/VPAs what is the default and cap value for charcoal baseline?

**Response:** 0.100 kg/l default values and up to maximum of 0.125 kg/l is allowed with supporting evidence.

**Comment:** Do the new default/cap values regarding the claimable water volume indicated in the new methodology version need to be considered also for the already registered projects? I.e. can the old projects continue to use the previous cap value of 7 liters/person?

**Response:** No, the projects registered with the current (3.1) or previous version of the methodology shall apply the default or monitored values, applying cap where needed, following the methodology version applied for project registration.

**Comment:** *"Once approved, the new SWS Annex will apply to all new VER projects/VPAs of any scale, including new VPAs submitted for inclusion in a registered PoA, that are submitted for VPA Inclusion/Design Certification review after the new Annex is published, though the standard three-month grace period will be available from the point of publication."* What is the submission for "VPA inclusion" meaning here? First submission of VPA to preliminary review? Or Submission to the internal verification?

**Response:** Refer to rule update released with the methodology for Annex -3 applicability of issuance and registration of projects.

**Comment:** Please note that in case this update will remain as Annex to TPDDTEC methodology the current Annex 5 ("Project Preparation and Monitoring Schedule") of the TPDDTEC should be updated to be in line with the new monitoring requirements of SWS and their timelines.

**Response:** Annex -3 has been replaced with the new methodology released as independent methodology. The new methodology includes summary of monitoring parameter and information required for specific project technology types in Annex -3.

**Comment:** We prefer to keep the 1 km range option within the methodology. This will enable wider range of community projects to be certified also in future. One alternative could be to provide two ranges (max 1km and max 250 m) for which different claims and different monitoring approached would be applied. Moreover, is the monitoring of water quality at household level necessary if the community borehole is located less than 250 m from the end-user households? If it is required, at least for the projects with < 250m distance the claim on SDG 6 should be accepted.

**Response:** Current requirements i.e., 1 km is retained in the methodology while collections time i.e., 30 min is included an alternative measurement approach.

**Comment:** We do know that the reasoning behind of not being able to make claims on SDG 6.1.1. is related to the definition of the water access (should be provided directly on the premises) as defined within the SDG indicator. However, it is very contradictory that the project can claim carbon credits (SDG 13) based on the consume of safe drinking water by end-users but, at the same, the project is not able to make any claim on SDG 6. Thus, in our opinion, should be agreed a way to demonstrate the impacts on SDG 6 (not necessary the SDG 6.1.1). Otherwise, it will be very difficult to explain to a client buying the carbon credits from a SWS project that no official claims on SDG 6 can be made at all.

**Response:** The methodology allows claims to SDG 6.1.1 and other contributions. However, the projects should provide information and identify the relevant monitoring parameters as outlined in the new methodology. (Refer to parameter SDWS 19)

**Comment:** CWT water quality: Enough to make the quality analysis at water source only in the beginning of the first crediting period in case the annual water quality check will be requested anyhow at household level.

**Response:** The water quality check requires to monitor microbial quality of water and priority chemical pollutants. The latter is not covered in household level water quality assessment and may change over the period of time depending on location. Hence it is retained as proposed in consultation draft.

**Comment:** Hygiene survey: Here should be added at

- the requirements regarding the monitoring of hygienic practices of the end-users (during the project/usage survey)
- the requirement of demonstrating the water quality through annual water samples at hh-level

**Response:** Relevant requirements are included in parameter SWDS 20 Water hygiene education campaigns of new methodology.

**Comment:** The introduction of this consultation states "Specific Energy requirement approach to quantify the energy required to boil water has been introduced. It replaces the baseline water boiling test (BWBT) requirement of current version of TPDDTEC methodology. This method applies default values and simplifies the requirements by removing the needs to conduct field test. Developers still have the option of implementing a field test according to the guidance and providing evidence for values higher than the default figures." In line within the above, the option of making BWBT and eventual related cap values should be added within the methodology.

**Response:** The revisions are in line with the latest development and advancements in safe water supply sector which is necessary to uphold and maintain the highest level of rigour and robustness expected from Gold Standard projects and integrity of the broader carbon market. The revised methodology intends to reduce the monitoring burden and related transaction cost to support the project development to the extent possible. The methodology allows to apply default values or determine the efficiency of baseline technology following WBT protocol.

**Comment:** Water quantity: The relevance and reference source for the proposed default values is not clear. For example, based on which source the 1.4 litres default value for the children has been set? In respect of the different climatic and activity conditions the set default values, and cap values results very low also in respect of WHO reports as well as in respect of the SWS CDM methodology, especially regarding the children. Please refer, for example, table 2 of the referred WHO 2003 report ([https://www.who.int/water\\_sanitation\\_health/diseases/WSH03.02.pdf](https://www.who.int/water_sanitation_health/diseases/WSH03.02.pdf))

**Response:** The revision to proposed approach has been introduced. The methodology presents default values without further differentiating among adults and children.

**Comment:** Should be added also a reference to "General Guidelines for Sampling and Surveys for Small-Scale CDM Project Activities" Also, for clarify we propose to add a clarification of the statistical requirements related to the cross-sampling over several VPAs.

**Response:** Reference to CDM document has been added and further clarification on cross sampling is included in section 4.2 of the new methodology.

**Comment:** Technology [Performance certification: Clarification needed. What are performance certifications? What information they need to include?

**Response:** Further information has been included under parameter SWDS 3.

**Comment:** Water source in the project boundary: Not clear the meaning the “project boundary” i.e. within which area/range all the baseline water sources should be identified? Above, project boundary is defined

- the physical, geographical sites of the low- or zero-greenhouse gas emitting technologies to supply safe drinking water installed by the project activity, and
- the household, commercial and institutional buildings where the end users of safe water provided by the project are located.

**Response:** It refers to the water sources that are used by end users in the baselines. Further details have been added to the methodology under parameter SWDS 5.

**Comment:** In our opinion there should be a way to account the impact of charcoal use in baseline i.e. the ERs should not be same for the project with baseline of wood and for the project with baseline of charcoal. In case of baseline being charcoal use, can emission factors of wood be multiplied with wood-to-charcoal factor to count the impact of charcoal?

**Response:** This approach is eligible under current methodology. The new methodology provides default emission factors for charcoal production from recent IPCC publications, and hence there is no need to apply charcoal to wood conversion approach any more.

**Comment:** Water quality testing: The option with threshold that reduces over time will give end-users time to adapt to the eventual new habits.

**Response:** Yes, this has been retained as proposed.

**Comment:** The requirement that no ERs at all can be claimed for the whole monitoring period is very strict and puts project developers in an unsecure position.

**Response:** Water quality is a critical parameter for this project types and may have significant impact if the project technology doesn't deliver the expected level of water quality. To ensure consistent safe water supply to end users, this parameter has been included.

**Comment:** Volume of water quantity: Here should be referred the eventual cap values for water consumption

**Response:** Included as suggested.

**Comment:** Clarify if this (project survey) may be done together with Usage Survey or if a separate survey is needed to be made

**Response:** The project survey and usage survey can be conducted in same household.

**Comment:** Should be added a specification that the maintenance and repair plan is to be included already in the PDD. This way, the description of the parameter would be in line with the other parameters as well as with the statement "All CWT projects also must include ongoing maintenance and repair of the project technology" made above.

**Response:** It is included in the methodology.

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**Comment:** What are the drivers on doing this after a long review has already been carried out under the grievance model?

**Response:** The changes reflect the responses to key recommendations and lessons learned through SWS grievance process. The methodology is updated to reflect the latest development and advancements made in distributed energy sector, especially with regards to safe water supply sector.

**Comment:** After speaking to several other project developers, this new meth will significantly reduce the amount of carbon credits, on top of the revisions made under the grievance. Are you aware that project developers are unlikely to run safe water projects under this meth? It has the potential to effectively stop all new safe water projects which undoubtedly will have a major negative impact to the local communities we currently serve.

**Response:** The methodology revisions are in line with the latest development and advancements in safe water supply sector and to address key concerns raised in the Grievance investigation report. The revisions will likely affect the emission reduction volumes for future SWS projects, however, this is needed to uphold and maintain the highest level of rigour and robustness expected from Gold Standard projects. The revised methodology intends to reduce the monitoring burden and related transaction cost to support the project development to the extent possible.

**Comment:** Hygiene practice modifier is useless, as the WQTs will show whether HHs store water hygienically. If HHs fail WQTs PDs cannot claim ERs for them. PDs will be penalised twice failures in water quality as a failed WQT is a de facto failed hygiene test. What is the rationale behind PDs suffering twice for one failure?

**Response:** The updated Annex requires the water quality tests for community technologies to be taken at the collection containers when they enter the

households. The aim is not to measure the storage or drinking containers, meaning the water quality test will capture safe supply up to the household, whereas the hygiene practice modifier aims to reflect safe storage and consumption of water. To have the intended impact of safe water supply projects, it is critical to provide safe water and ensure that the safe water is consumed hygienically. Note that the methodology doesn't consider hygiene survey outcomes for emissions reductions calculation but requires monitoring of hygiene practices to ensure best practices.

**Comment:** Does the 250m rule for 6.1.1 not also apply to HWT? As if HH collects unsafe water from >250m away and treat with a household water filter, why is it that they can claim this SDG?

**Response:** SDG 6.1.1 tracks the access, quality and availability of the safe water. HWT provides water treatment at the household level and hence ensure the access, quality and availability of water at the household level and are considered eligible to claim a contribution to SDG 6.1.1. The methodology has been revised and provides more guidelines on how project can monitor and SDG impact and make claims.

**Comment:** Does GS have any considerations on the privacy of CWT users? Is it essential to collect satellite imagery of each users house and journey to waterpoint? If host country data privacy laws, or UK, EU, US laws are contrary to this practice is it still a requirement? The BAMG report questions collecting so much data on project beneficiaries, and now GS are asking PDs to collect more sensitive data. Has this been considered?

**Response:** The new requirements state that satellite imagery or GPS readings may be used to establish the distance between the waterpoint and the household. This distance would be "as the crow flies". The individual data privacy clauses are regulated at the national level and it is important that national regulation are taken into account. The information and evidence may be provided without compromising the privacy of individuals. The project developer, when needed to provide such information, may mask the individual's identity following the regulatory context of the host country.

**Comment:** The CO2balance SWS portfolio is roughly 50/50 wood use/suppressed demand. CO2b projects make up the majority of GS SWS projects. Therefore the figure of 94% seems erroneous. CO2b submitted this information to GS - was this read and taken onboard?

**Response:** The information shared by CO2b has been assessed by the author and will be taken into account for future communications, as needed.

**Comment:** What satellite imagery or GPS techniques do you recommend to collect HH details on thousands of households? 300 users is roughly 70

households. Does the meth require PDs to plot every single household, keeping in mind that a micro scale VPA may require 100 waterpoints (100 \* 70)? Has GS considered the reality of this?

**Response:** The project developer may provide relevant information using GPS coordinates and other means as available at the project level and in the host country. For example, the project may use Google maps. The methodology provides further guidelines on requirement and monitoring approaches. Refer to parameter SWDS 1.

**Comment:** Why is the scope of the new meth reduced to only drinking water? This goes against WHO guidance on safe water use which in its Guidelines for drinking-water quality, defines domestic water as water used for all usual domestic purposes, including drinking, food preparation and hygiene? This is particularly pertinent given that the distance is being limited to 250m if SDG 6 claims are possible and the closer HHs are to WPs the more water would be consumed.

**Response:** In the previous version, the methodology allowed crediting for drinking, cooking & personal hygiene. Some of the water uses, for example - cooking water would be boiled in any way. Following the conservativeness principle, the revised version of the methodology limits the crediting to drinking water only. This revision is consistent with other carbon credit methodology, for example, CDM methodology AMS-III.AV & AM0086, and literature sources related to drinking water needs.

**Comment:** Clarification on the suppressed demand % quoted – this accounts for those that boil and those that would boil (i.e. the purpose of the suppressed demand assessment is to find the % that do not boil and would not boil – which is the 6% from the figure quoted for whom emission reductions are not claimed).

**Response:** Noted.

**Comment:** On the Energy Requirements – please can justification be given for the assumed 1% water loss which accounts for only 22.6KJ (equivalent of 14g wood when taking into account 10% baseline stove efficiency)? Consideration also needs to be given to energy required to keep the system at a constant boiling temperature over a 5 minute period.

**Response:** The water loss assumptions are based on CDM methodology. The methodology accounts the losses - the latent heat required to boil one litre of water for five minutes is assumed to be equivalent to latent heat for the evaporation of 1 per cent of the water volume. After consultation with subject

matter experts, the TAC has retained the approach included in the consultation draft following conservativeness principles.

**Comment:** If a Project Area National Water Policy contradicts the methodology – which would take precedence?

**Response:** National regulations must be taken into account, and the project should uphold the highest rigour, where possible. The regulation may have a different implication for different methodology parameters. The revised methodology provides more clarity in this regard.

**Comment:** For water quantity – as the monitoring requirements here are significantly above those previously required – would consideration be given to monitoring either Monitored quantity of safe water provided by the project OR quantity of safe water that could be consumed by project households? As only one data point is actually used in the ER calcs.

**Response:** Alternative methods are available to quantify the water quantity. Refer to the relevant parameters for the details.

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**Comment:** What about Kiosk projects that deliver water to beneficiaries to points of collect and they use other means of transport (eg motorized transport)?

**Response:** Water Kiosk is an eligible technology under Community Level treatment technology

**Comment:** Are the only travel modes considered walking/biking?

**Response:** These are considered the most common travel modes but methodology doesn't limit applicability based on other modes.

**Comment:** What is the key criteria to assess distance (1 km/250m)?

**Response:** These were the options included for stakeholder feedback. Following the stakeholder consultation, the methodology included 1 Km or 30 min travel time as eligibility criteria. Refer to parameter SWDS 1 for further details.

**Comment:** Why operational days has cap of 347 days for CWT technologies?

**Response:** The methodology provides two options – option 1 direct measurement or option 2 assessment based on log of operation and maintenance system. The methodology caps the number of operational days at 95% i.e., 347 out of 365 taking into account the published literature and expert opinion for option 2.

**Comment:** Clarify under which category water purification technologies applied at community level should be included? Suggest to use the list of adequate HWT technology categories used in household surveys such as DHS or MICS?

**Response:** Definition of treatment technologies has been revised as suggested.

**Comment:** WHO Star 1 technology should be included?

**Response:** Not included as suggested considering the technology quality to ensure delivered water quality.

**Comment:** "In case of market-based projects, the education campaigns might be implemented in the form of marketing campaigns promoting household water treatment and household hygiene, including but not limited to the promotion of the project technology."

**Response:** The requirements for hygiene practices are outlined in the methodology. Refer to parameter SWDS 20 for hygiene campaign requirements.

**Comment:** WHO also considers temperature and Inactivation time (s), reducing water boiling time from 10 minute to 5 minute will reduce the fire wood consumption. We would like to suggest adopt CDM approved methodology AMS III AV approach.

**Response:** The proposed approach follows CDM AMS IIIAV.

**Comment:** in the current revision a default number has been given to this. This can have a profound impact on the ERs generated. Proposed change: go back to a standard WBT

**Response:** Methodology provides two options – default values or determine the efficiency of baseline technology using standard WBT protocol.

**Comment:** In some countries, women are traveling 10hr a day just for collecting a water and water sources are far away from their households. Page 7 - (<https://www.unicef.org/media/91291/file/Climate-change-WASH-Brief.pdf>) (<https://www.unicef.org/malawi/water-sanitation-and-hygiene>). Therefore 1 km distance or 30 minutes criteria is not reasonable.

**Response:** The project needs to ensure/improve accessibility of water to improve this situation. This criterion has been included in earlier versions of the Gold Standard methodology to ensure that high-quality projects are incentivized.

**Comment:** The wording in the description of the parameter (water sources in project boundary) is very confusing. Proposed change: Provide a much clearer

description to this parameter considering that it's a new addition as compared to the previous version of the methodology/annex

**Response:** The methodology includes a definition of water sources and further details on assessment in ANNEX -2: Definition of Water Sources.

**Comment:** At times it is difficult to get even one source. For example, if a baseline survey is being done for this parameter then it is most likely that percentages to be applied will not be available in literature of statistics. In this case cross-checking is not possible due to the unavailability of the data. Proposed change: The percentages applied shall be cross-checked against at least one other source on the list in case more than 1 sources are available in public domain.

**Response:** Revised as proposed above.

**Comment:** National household surveys such as the DHS or MICS are usually conducted every 5 years only. These reports include high-quality data, often disaggregated at sub-national level. Proposed change: Source applied must not be more than 5 years old

**Response:** Revised as proposed above.

**Comment:** the baseline for "boiling" should be water quality at the point-of-use and not the point-of-collection. Proposed addition: "For HWT projects it is recommended to establish Cb at point-of-consumption for a representative number of households."

**Response:** Revised as proposed above.

**Comment:** Would GS refer to the previous water quality standard? Especially for poor regions?

**Response:** The GS methodology requirements has not been revised for water quality parameters.

**Comment:** this requirement (water quality) seems to be very strict and hard to achieve in areas where interventions are most needed. Reaching < 1 E. coli CFU/100ml is difficult in rural Sub-Saharan Africa given the generally unhygienic environment. This requirement does not account that the intervention might have significantly improved water quality from a high fraction of "high risk >100 CFU/100 ml" to lower risk levels. Proposed change: replace with "If the proportion of samples not meeting <1 CFU/100 ml exceeds 15%, the project shall provide an explanation how the project overall still improved water quality in the project area (e.g. comparison of risk levels at baseline), an explanation

how this occurred and provide a remediation plan.

**Response:** The methodology includes a staggered approach. The water quality is critical and must be monitored and ensured as required in the methodology. Following the expert's opinion and carbon market methodology, no change is included in the methodology.

**Comment:** this modifier significantly changes the scope of an intervention. I.e., all households need to have soap and water present for handwashing at the time of the monitoring visit; and the main water source needs to be from an improved water source within 30 min roundtrip. While this is desirable, projects will not be possible in the most challenging areas. E.g. if households that use unprotected wells/springs will not be eligible for GS VERs even if they change from boiling to another adequate household water treatment technology.

**Response:** This parameter has not been included in the methodology.

**Comment:** wording (usage survey) is unclear. Proposed change: only household that show consistent use may be counted."

**Response:** The information has been revised to provide more clarity.

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**Comment:** Water quality testing: The existing framework for evaluating water quality effectively credits only the proportion of filters that pass water quality testing. Enforcing a cut off, whereby no credits can be issued if the water quality falls below 90%, would have the unintended effect of challenging the overall financial outlook of projects such that new water filter projects would likely not be feasible. The effect of this will be reduced access to clean water overall, which is counterproductive to the aim of this change.

**Response:** Water quality is a critical parameter for this project types and may have significant impact if the project technology doesn't deliver the expected level of water quality. To ensure consistent safe water supply to end users, this parameter has been included.

**Comment:** Health/Hygiene campaign modifier: Similarly the health and hygiene campaign WHO survey and applied modifier also seem to have the intention of ensuring that safe water is being provided, but really this parameter is already monitored with water quality testing, so adding a modifier only may serve to further reduce credits. The hygiene campaigns and surveying for their effectiveness could perhaps be included in monitoring requirements without then applying a value to emissions reductions quantification, since water quality is already accounted for.

**Response:** The Hygiene modifier has been removed following the feedback from stakeholders.

**Comment:** Water consumption cap: The modification from the current rules whereby total water consumption is accounted for, to only credit water consumed for drinking, does not align with best practices of using filtered water for dishwashing, teeth brushing, cooking food, etc. This is inherently more conservative but clean water should be used for purposes other than just drinking.

**Response:** In the previous version, the methodology allowed crediting for drinking, cooking and personal hygiene. Following the conservativeness principle, the revised version of the methodology limits the crediting to drinking water only. This revision is consistent with other carbon credit methodologies, for example, CDM methodology AMS-III.AV & AM0086 , and literature sources related to drinking water needs.

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**Comment:** As GS mentioned in the most recent Webinar, the vast majority of registered projects utilize a suppressed demand baseline. Utilizing suppressed demand should not discount the requirement to accurately survey the baseline scenario. The following data are important information for potential buyers to consider even if suppressed demand baseline is used:

- (1) The rate of use of any and all water treatment technologies prior to project implementation.
- (2) The quantity of treated water used per day prior to project implementation.
- (3) The uses for treated water (drinking, cooking, cleaning, etc.) prior to project implementation.

Most PDD's include a synthesis of baseline surveys, but do not include copies of actual survey responses. GS should require project developers to upload and share baseline survey results in the "Certification Documents" section of the impact registry.

**Response:** When the opportunity to achieve a satisfactory level of service is available through carbon finance, then, in the context of this Gold Standard methodology, project developers can adjust the baseline scenario accordingly to take into account suppressed demand situations. Under such circumstances, the baseline scenario may be determined from the satisfactory level of service achieved by their peers, or from the project level of service achieved, with consideration for conservativeness and trends of increasing living standards. This methodology requires to collect information to confirm baseline technology, fuel types in all cases, while WHO recommended water consumption values are

assumed as satisfactory service level and allowed to use to establish the baseline service level.

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**Comment:** Still keep the possibility to measure the required energy or fuel to boil water during 10 minutes. However, following the remark mentioned in the Investigation Report on page 38 mentioning that the specific fuel consumption for boiling water during 10 minutes reduces with the quantity of water. Hence, we propose to conduct the test with higher amount of water, ie 5 liter instead of 1 liter.

The proposed default value for the amount of energy required to boil 1 L of water from a first principles approach (ie 360.83 kJ) is far too low and doesn't take into account some thermal convection and thermal radiation losses, and heat 'lost' to heat up the pot. When taken this losses into account a value of 731 kJ is calculated. The evaporation losses are dependent on water surface area, water temperature, air temperature, air humidity and air velocity above the water surface which will vary with location. In this calculation (in attachment) evaporation losses have been estimated based on water surface area and water temperature. Air velocity has not been considered, hence the calculated losses are conservative. Only heat losses were only estimated during the simmering phase. The thermal losses during the heating phase were not considered, so one can conclude that the proposed value of 731 kJ based on thermodynamical principles is still a conservative value.

**Response:** The revisions are in line with the latest development and advancements in safe water supply sector which is necessary to uphold and maintain the highest level of rigour and robustness expected from Gold Standard projects and integrity of the broader carbon market. The revised methodology intends to reduce the monitoring burden and related transaction cost to support the project development to the extent possible.

The water loss assumptions are based on CDM methodologies and follows conservative approach as recommended by the experts. The methodology accounts the losses - the latent heat required to boil one litre of water for five minutes is assumed to be equivalent to latent heat for the evaporation of 1 per cent of the water volume. After consultation with subject matter experts, the TAC has retained the approach included in the consultation draft following conservativeness principles.

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**Comment:** We would like to propose that suppressed demand for community water treatment be continued to be covered for community water treatment activities located in Least Developed Countries (LDCs), as long as activity proponents can prove scarcity of resources that prevents provision of safe

drinking water to the targeted members of the community.

Reasoning: While we recognize that uncritical continuation of suppressed demand approaches in international carbon markets is inconsistent with the long term target of the Paris Agreement, we are of the opinion that according to the principle of common but differentiated responsibilities and respective capabilities LDCs rightly may consider suppressed demand in their national climate policy until they graduate from the LDC category. International carbon markets should apply a similar reasoning.

**Response:** The suppressed demand approach is allowed and included similar to previous versions of the methodology.

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**Comment:** Suppressed demand: This text suggests this is optional. Does this mean it is at the discretion of a project developer to decide to consider suppressed demand for non-domestic systems. Secondly, if this is a “shall” and not “may”, then this is likely to affect many underprivileged institutional / community based systems who cannot boil water due to lack of resources and are exposed to un-treated un-safe drinking water.

Please note the other prevailing methodologies like CDM AMS III.AV does not distinguishes domestic and non-domestic systems wrt to suppressed demand.

**Response:** The methodology allows institutions to account suppressed demand baseline provided the institution are not connected with public distribution system - - unless justified that supplied water quality doesn't meet safe water definition (parameter SDWS 12).

**Comment:** Fuel consumption: The text in the following section where the default value has been specified does not mentions that it is optional. It is requested to clarify the same in the methodology.

**Response:** Further information has been added to the parameter SDWS 11 .

**Comment:** Please clarify the difference between a water treatment technology – the term used for household systems, and water supply technology – the term used for community systems. Does this mean that non-domestic point of use systems are not eligible as per the annex.

In which group are commercial/ institutional systems will be covered. If they are considered under CWT then CWT should not refer to households in general to avoid confusion

**Response:** Definition of technologies is included in section 1 to provide more clarity.

**Comment:** Again, based on above comments, it is not clear how this rule will be applied to Institutions. Also, this is highly prohibitive for CWT projects. One cannot limit access of project water kiosk to users upto 1 km distance. It is not clear how this would be demonstrated ex-post. There are cases where the local people collect water from nearby schools / hospitals which may be more than 1 km away but lot nearer to other safe public water sources which might be more than 3-4 kms away. In some countries, women are traveling 10hr a day just for collecting a water and water sources are far away from their households. Page 7 - (<https://www.unicef.org/media/91291/file/Climate-change-WASH-Brief.pdf> ). GS should refer various country reports (MICS/DHS/WASH) which indicate that in many countries, source of access to safe water lies more than a distance of 1 km for majority of population.

**Response:** The project needs to ensure/improve accessibility of water to improve this situation. This criterion has been included in earlier versions of the Gold Standard methodology to ensure that high-quality projects are incentivized.

**Comment:** Water quality –What about institutional systems. Given CWT possibly includes institutional systems, it is not possible to demonstrate this for each school, for example.

**Response:** Note that the water quality for CWT/CWS is to be monitored at the start of the CP for – microbial quality parameter and priority chemical pollutants, while for HWS/IWT it is required to be monitored on sample basis. The new methodology includes further clarification and details for different project technologies. Please refer to SWDS 18 for further details.

**Comment:** Please include an option of limiting the crediting to the technical lifetime if replacements are not being provided.

**Response:** it has been included in the revised methodology.

**Comment:** Please refer to comment above. The earlier section of Annex makes it optional and not prohibitive. CSIPL strongly objects to limiting suppressed demand to micro and small-scale projects. The concept of suppressed demand shall be applied on the basis of unit size. If the project is solely consisting of units that contribute to less than 600tCO<sub>2</sub> per annum, then suppressed demand should be deemed applicable.

Limiting this to micro / small scale activities in merely going to increase transaction costs for project developers wherein larger initiatives will have to be converted to a micro / small scale PoA.

**Response:** This is inline with the Principles & requirements of GS4GG and has been retained as it is.

**Comment:** Suppressed demand - Is this only applicable to households as per para above. If yes, it is requested to clarify this please.

**Response:** It has been clarified in the methodology.

**Comment:** It is not clear why boiling has been reduced to 5 minutes. Firstly, the WHO 15.02 in our opinion, does not clearly specifies that 5 minutes boiling is enough. Secondly, the boiling is over baseline 3 stone fires. These stoves are not constant flame stoves (like kerosene, LPG, or induction) and the boiling is not continuous but intermittent. Hence usually, the water is boiled for longer durations instead of merely 5 minutes.

Assuming 1% water loss over a much conservative 5-minute boiling is not deemed appropriate.

We have conducted multiple WBTs across multiple technologies and geographies in last once decade over cookstove projects and more than 1% water is evaporated even before water is reaches boiling. For a 5-minute rolling boil the water evaporation is expected to be more than 1%.

**Response:** The revisions are in line with the latest development and advancements in safe water supply sector which is necessary to uphold and maintain the highest level of rigour and robustness expected from Gold Standard projects and integrity of the broader carbon market. The revised methodology intends to reduce the monitoring burden and related transaction cost to support the project development to the extent possible.

The water loss assumptions are based on CDM methodologies and follows conservative approach as recommended by the experts. The methodology accounts the losses - the latent heat required to boil one litre of water for five minutes is assumed to be equivalent to latent heat for the evaporation of 1 per cent of the water volume. After consultation with subject matter experts, the TAC has retained the approach included in the consultation draft following conservativeness principles.

**Comment:** Water consumption default - What about children over 10 but not yet adults.

**Response:** The methodology has been revised to keep same default for all age groups.

**Comment:** treatment capacity: This is not clear. In many cases the treatment capacity is expressed in litres and not as a flow rate, specially, in case of non-piped systems. Fy Please clarify how this would be determined in case of chlorine tablets for example.

**Response:** Further parameter has been included to account the comment.

**Comment:** Sample size: This is deemed applicable only to proportion parameters and not to mean parameters. Please clarify.

**Response:** Clarification is included in section 4.2&4.3 of new methodology.

**Comment:** Where would this be put to use. It is not clear what the use of this parameter. This is practically impossible to determine in case of absence of any published literature. Conducting a study of all sources in the project boundary for a country like India for example, it's a project in itself which might take more than 10 years to complete.

**Response:** It is to be conducted for target population and to establish if the baseline source of water is improved or not.

**Comment:** Many national reports etc take more than 5 years to get updated. National household surveys such as the DHS or MICS are usually conducted every 5 years only. These reports include high-quality data, often disaggregated at sub-national level. It is requested to be more considerate developing/underdeveloped countries.

**Response:** multiple sources are allowed. The project developer can refer to other sources if DHS or MICS are not recent ones.

**Comment:** This can be very challenging. In many developing/ underdeveloped countries presence of even one of the listed sources is questionable. Binding the PP to cross-check this against another source may not be possible in many cases.

**Response:** Further guidelines have been included in section 3.11 of the methodology.

**Comment:** We wish to draw attention to use of different terms. Improved source may not be safe and vice versa. Also, the definition of safe has to be clarified. Many reports refer to safe in terms of access and not in terms of quality.

**Response:** Definition of water sources improved/unimproved following JMP/UNEP sources as listed in the methodology. Refer to section 1 and Annex 1 of the methodology.

**Comment:** Often field water quality testing is done using standard testing kits which do not require laboratory testing but only incubation. The QA/QC

**Response:** Water testing kits are allowed provided that the testing kits are

recognised by the listed agencies. Refer to parameter SWDS 18 for further details.

**Comment:** This is deemed very demanding. Covering all JPM questions for drinking water and core questions for hygiene will result in a very extensive survey. Also, many users may not be able to answer all the questions due to lack of understanding.

**Response:** The requirement is limited to core questions for drinking and Hygiene.

**Comment:** This is highly prohibitive. With post COVID remote monitoring is the new normal. PP may use ICT to monitor the users for usage. Applying a 25% discount only because monitoring is remote is objectionable. The GS concern on monitoring credibility is appreciated, however, this risk can be averted by mandating the VVBs to have a 10% extra samples size during audits where remote monitoring has been done by PP. Again, 30 for each age is deemed not applicable in all cases specially in case of consumables (eg. Chlorine tablets) Every time a new supply is made the system regenerates itself so 30 per age category is deemed superfluous in some cases.

**Response:** The alternative options are provided which allows to claim emission reduction without applying an adjustment. In case of chlorine tablets the project may propose an alternative approach.

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**Comment:** Suppressed demand- Does this also apply to HWT technologies applied in institutional settings, e.g. schools, day-care center, etc.?

**Response:** The methodology allows institutions to account suppressed demand baseline provided the institution are not connected with public distribution system - - unless justified that supplied water quality doesn't meet safe water definition (parameter SDWS 12).

**Comment:** List of default values where field surveys can be used to adapt parameters and specific requirements for these, would be helpful.

**Response:** The revised methodology includes summary of the parameter/information in Annex -2.

**Comment:** Current document does not state information regarding water testing requirements prior to project start as well as previous requirement of first WQT within 6 months of project start. Kindly clarify.

**Response:** It has been included in the revised methodology.

**Comment:** Are ultraviolet radiation treatment systems included? Provided they are non- or low-emission technologies.

**Response:** The revised methodology includes the definition and example technology where no or low emission technologies are listed and approach to quantify emission reductions has been provided.

**Comment:** Collection time and queuing can vary depending on project region and seasonal factors. 1km distance is still in accordance with service ladder and should be considered. What are the reasons for restricting SDG 6.1.1. claims entirely instead of providing e.g. a threshold/cap?

**Response:** Current requirements i.e., 1 KM is retained in the methodology while collections time i.e., 30 min is included an alternative measurement approach. The methodology allows to claim SDG impact provided that the information is shared on key aspects as outlined under parameter SDWS 19.

**Comment:** Do the technologies have to be tested by the WHO or only be in line with the log-reduction targets for pathogens? Considering the timeframe and costs involved in participating in the WHO HWTSS scheme, options for getting technologies certified in an accepted period of time may be limited.

**Response:** The WHO HWTSS scheme classifies according to effectiveness against three classes of pathogens.

**Comment:** Since not all technologies are equally effective against these pathogens and the previous focus of GS on bacteriological contamination, can it be considered to use technologies in projects that have 2-star/3-star protection for certain pathogens (e.g. E.Coli)?

**Response:** It is not required that the technology should be tested by WHO – a recognised laboratory can conduct these tests following the requirements outlined in the methodology. The technology that achieve 2 or 3 stars are eligible as outlined in the new methodology.

**Comment:** End of technical life, end of guarantee period or EOL (end of life)? In our understanding, this refers to the replacement mechanism for non-functioning devices or if applicable needed spare parts – correct?

**Response:** Yes, replacement of the technology or rehabilitation by replacement of parts both are allowed.

**Comment:** What are the documentation requirements for institutional settings (e.g. schools) regarding the served individuals per premis/technology?

**Response:** Schools attendance records or similar documentary evidence is allowed.

**Comment:** Caps are based on minimum requirements for hydration and do not necessarily reflect right to safe water for leading a safe and healthy life. Water consumption for hygiene is not considered. In addition, reference source also mentions that average water consumption l/p/d are the same for adults as well as children since clear differentiation is not possible and children have additional hydration needs due to general development.

**Response:** The methodology has been revised the same default values are applicable across the age groups.

**Comment:** Manufacturer guarantee is not necessarily in line with technology/device life. Is field documentation from other projects/field test a possible mode to additionally demonstrate need for replacement through project durations? Clarification if applicable and/or needed.

**Response:** There are multiple resources that can be used for justifying the technical life of the project technology. You may propose further evidence if meets the quality requirements.

**Comment:** What are the requirements for these WQT and over which time period? Literature sources are manifold.

**Response:** Six months. Further details have been included for this parameter.

**Comment:** Staggered improvements might be more realistic regarding HWT considering usage patterns and lack of safe water management chain at the start of the project.

**Response:** the revised methodology provides staggered approach.

**Comment:** Which guiding documents is the cap based on?

**Response:** Expert's opinion. You may suggest alternative measures.

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**Comment:** Recommend - Recommend Meth. ICS = Type II SWS = Type III

**Response:** this methodology falls under type III category. It has been clarified in the revised methodology.

**Comment:** Water quality for HWT: Testing local feedwater seems impractical to establish eligibility.

**Response:** The water quality parameter testing in laboratory is a standard practice and has been part of carbon market methodology. Methodology provides further clarity on quality testing requirements.

**Comments:** Water quality: Is there an option for project techs renewing to have flexibility here? Seems unfair that a tech could become ineligible midway thru a lifetime.

**Response:** the project technology must deliver the safe water to remain eligible for claiming carbon credits. The project needs to demonstrate compliance as per methodology requirements.

**Comment:** Water quality: It would seem unfair (and deter investment) if, for whatever reason, this applicability criterion was breached halfway through a project. Doing it at the start once is Ok. And it should be when the CWT starts.

**Response:** Response is as for above question. As reported in literature CWT may face quality issues especially for priority chemical pollutant and therefore are required to reconfirm that technology is/can deliver the safe drinking water.

**Comment:** Water quality testing: In most countries these are quite stringent and expensive to test for. A PD cannot control the presence of these contaminants and could invest in tech only to find they fail this test. We absolutely want good standards but not undue PD risk. Can an option be arsenic and fluoride as the base test in conjunction with Host Country approval of project?

**Response:** The project technology must be tested at minimum for priority chemical pollutants for arsenic and fluoride, unless national regulations requires testing for other parameters. The national regulations takes precedence in this regard.

**Comment:** Suppressed demand - I can't see where this distinction between SD and non SD is made for each project and memorialized. And it will be important. See point about CP renewal below.

**Response:** As stated in the methodology, the no access to safe water is assumed as suppressed demand situation and allowed to claim suppressed demand baseline.

**Comment:** Modifier for the water quality in year  $y$  - I struggled to find this, see comments below

This value (water consumption) will greatly reduce ERs for projects. AMS ii AV allows max. 5.5 for all users. Both meths are applicable – this would be a complete reversal; GS meth leads to less ERs than CDM one. Recommend 5.5 cap for all users and a cap on HH size. The way this is pitched, there is no point monitoring. Which suggests the default is too high.

**Response:** The methodology provides the revised default values under parameter SDWS 24. The household size varies significantly and hence not considered for cap.

**Comment:** How can you measure the litres drank by children using the WCFT?

**Response:** WCFT is conducted for household level consumption and average per individual is applied. The revised methodology doesn't differentiate based on age groups.

**Comment:** Parameter ND,y Don't you need to monitor HH total use in this case (if more than 1 tech)?

**Response:** Yes, refer to the parameter  $QPW_p$  for details.

**Comment:** parameter LE,y Need a aparameter box, ex ante or monitored

**Response:** Included in the methodology. Refer to SWDS 35.

**Comment:** Minimum sample size - This is not required in CDM rules for mean paramaters that meet 90/10. Surely it makes sense to align if specific guides (as below) are not given? Im thinking WBT tests here. You don't need 30 if the efficiency is (provably) not variable.

**Response:** Minimum sample size requirements are outlined for each parameter. Where it is not available, the sample size shall be determined as per the requirements outlined in section 4.2 & 4.3 of the methodology.

**Comment:** Distance from water point - This whole parameter is grossly unfair to CWT. HWT may walk for miles/hours to get dirty water and then just because the device purifies at home this is ok? CWT are penalized here if their sources are popular and people queue.

**Response:** This is eligibility criteria to ensure the accessibility in a project. The project technologies are incentivized based on service types and output. The methodology ensures the comparability where possible.

**Comment:** Distance from water point - Suggest a survey to check collection time is reduced OR <30mins, both should be ok, surely?

**Response:** Once eligibility is established at the time of registration, monitoring can be conducted on survey basis.

**Comment:** Distance from water point: This may not be known at time this parameter is determined

**Response:** The methodology allows to update this information for individual installation prior to first verification.

**Comment:** Distance from water point: How will this be determined? It cannot be done using google maps, you can't see bridges. They may be seasonal etc.

**Response:** Project should assess it based on understanding of local geography, where such situation exists, if not feasible to monitor via google map or alternative means.

**Comment:** Baseline Survey/project survey: What is this? What are the requirements?

**Response:** Please refer to the methodology details – annex 2 for summary of parameter which entails what information is required to be included in the baseline and project surveys.

**Comment:** National regulatory framework - This can be unbelievably complex to comply with and check. We could spend days arguing this. Suggest complies with the 'summary' AND/OR obtain Government Approval for the projects.

**Response:** National regulations shall be honored to ensure compliance. The government approval can be considered as an evidence to confirm compliance.

**Comment:** Water sources in the project boundary - What is the purpose of this parameter in ERs/ meth? ALL = Impossible for large project areas. Probably impossible for small. Surely a baseline survey is enough to know whats there?

**Response:** This is to determine the end user that have access to improved water and used to determine the baseline emissions. Please refer to Eq -3 of methodology.

**Comment:** Parameter – Qi Biosand filters will not fit into the above (not manufactures, not certified, not sold. Suggest credible Professional opinion or expert opinion is acceptable

**Response:** biosand filter is designed following the established protocol. A manufacture should be able to provide this information.

**Comment:** It is common for survey results to be slightly different. PDs need instruction what to do. If >10% than PD should adopt cross checked literature value?

**Response:** Section 3.11 includes further details on how to account the variation.

**Comment:** CWT performance level: 1<sup>st</sup> CP date is movable and not always known. How about tech functioning? Why is it necessary to do at every CP start when monitoring requirements are min Annual?

**Response:** The testing should be conducted for individual unit as source of water may have different level of contamination. The source can have impact due to water withdrawal rate and may face contamination over the period of time. The annual quality check doesn't include chemical pollutants.

**Comment:** CWT performance level in case of extreme incident like flood: this is voluntary reporting. Suggest remove – no way of checking. If no labs are near the project area? Surely good quality test kits (as below monitoring parameters are ok?

**Response:** This parameter is to be tested by independent lab as requires testing in line with the WHO or National standard and includes microbial and chemical pollutants.

**Comment:** Water quality Complex – the lack of credits is an effective incentive. Surely a clearer approach is lose credits proportional to percentage failures? Then perhaps 2<sup>nd</sup> 'offence' >10% is double %age 3<sup>rd</sup> offence treble.. Any 'lose all situation' is likely to incentivize dishonest behaviour. Its not fair to lose **all** your credits if your project isn't working perfectly. We have to give PDs the chance to improve/control their projects.

**Response:** A staggered approach is adopted for this parameter.

**Comment:** Number of household served - My understanding is this survey is simply Do you use it daily weekly? Recall the amount of water delivered is known AND there is a WCFT

**Response:** Yes, this is to confirm if the end user is using the water source that are part of project.

**Comment:** Parameter DO<sub>y</sub>- Q<sub>m,y</sub> above measures either litres or pump strokes per day. This parameter is not needed?

**Response:** this is needed to confirm total number of days. Not all units will be installed at same time.

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**Comment:** We have serious doubts that these aims will be achieved with the suggested revision of Annex 3. It is highly surprising that the revision aims at reducing the applicability from water for drinking, food preparation and cleaning to drinking only. The projects we are operating have been designed to provide full safe water access and cannot be operated based on drinking water access only. We have tried to make clear in the grievance process for safe water projects that intensive monitoring and maintenance work is required to be able to provide full water access for households. If the eligibility is reduced to drinking water only (in combination with other cuts being suggested, either through the grievance process or through the revision), a financially viable operation of borehole projects will not be possible anymore.

As for new projects, we don't see how the revised version of the methodology will allow carbon finance to operate borehole projects. Massive reductions in various factors (cap of water consumptions, fuel consumption in baseline, etc.) in combination with extended monitoring requirements lead to both - reductions in carbon credits generated and costs incurred. A formula, which does not allow the operation of borehole projects under the Gold Standard.

We are currently operating more than 170 boreholes, providing safe water access to more than 100,000 people, leading to massive improvements in their daily life. When these projects will face the renewal of the crediting period and we will have to switch to the revised annex, the marginal income we will generate will be far from covering our costs. There will be no other alternative than to stop our maintenance and support work for these boreholes and within a few months, boreholes will fall into disrepair, as there is lack of funding to pay for replacement and repair. These communities will fall back to their baseline, which is either using massive amount of firewood for boiling water or using unsafe sources, leading to massive health problems. In order to avoid these consequences, we urge the Gold Standard to refrain from implementing the suggested changes.

**Response:** The revisions are in line with the latest development and advancements in safe water supply sector which is necessary to uphold and maintain the highest level of rigour and robustness expected from Gold Standard projects and integrity of the broader carbon market. The revised methodology intends to reduce the monitoring burden and related transaction cost to support the project development to the extent possible.

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**General feedback:** We support the step of revising Annex 3 as it is now much easier to understand, clearly structured and provides more guidance to project

developers. We also support the simplifications/default values made for ER calculation and believe that this will further enhance environmental integrity in crediting under TPDDTEC Annex 3. However, we have some concerns/suggestion for amendments as well as questions in the following fields:

- Water consumption cap for children
- Performance criteria for water purification technologies (1\* vs. 2\*)
- Suppressed demand for CWT
- Water quality testing

**Comment:** Distance rather than minutes. Queuing is often unforeseeable.

**Response:** The methodology provides two criteria distance or 30 minutes travel time. The developer may choose the one most relevant to the project case.

**Comment:** We don't understand why water purification technologies which are endorsed by the WHO and which provide targeted protection (1star technologies) are not eligible anymore. In our case we have a listed project in rural Uganda with our project partner **HELIOZ (SODIS device WADI) #GS10738**. More than 10,000 devices have been distributed, hygiene campaigns with a special focus on Covid are regularly conducted. The WADI device was tested in WHO Round I and reached 1\* => its performance within the 3 pathogen classes bacteria, virus, and protozoa was a more than 2log reduction = over 99%. To reach a 2\* classification, a technology must achieve a 3log reduction =99.9% reduction in case of viruses – the WADI only reached a more than 99% reduction. With this performance 10,000 households get a reliable, robust and easy-to-use technology which they appreciate, which is endorsed by the WHO and which provides a water purification solution in areas where nobody else takes care. We would like to ask you to continue with 1\* technologies being eligible.

**Response:** This eligibility criteria is inline with the WHO requirements. However, if the technology is compliance with the national standard or guideline<sup>1</sup> for household drinking water treatment technology, it can be included in the project.

**Comment:** Many technologies haven't been tested yet by the "WHO International Scheme to evaluate HWT". So far only 2 rounds with approx. 15 technologies tested. Involves resources and time => not clear when WHO will start Round 3.

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<sup>1</sup> The national standard or guideline shall be based on laboratory efficacy testing that, at a minimum, includes quantitative microbial measures of pre- and post-treatment challenge waters that are representative of potential drinking water sources, and that includes measured reductions based on at least one pathogen class (bacteria, viruses, protozoa). "Challenge water" is synonymous with "test water". This is the experimental water that has been spiked with microbes (a "microbial challenge") in order to demonstrate the potential for the technology to reduce microbes.

**Response:** It is not mandatory to get the technology tested by WHO. Any accredited laboratory may conduct the performance test but it must be in compliance with the guidelines provided in footnote 9 of the methodology. The developer may use the WHO results to demonstrate compliance if the technology has already been tested.

**Comment:** Why do you make a difference between HWT and CWT in terms of water quality performance criteria as per the WHO International Scheme to evaluate HWT? The WHO guideline set thresholds for reducing 3 classes of pathogens: bacteria, viruses and protozoa. For CWT you only consider bacteriological quality and not the other classes of pathogens. Is there a reason?

**Response:** The differences are made due to the nature of the technologies. The developer may seek a revision in the methodology.

**Comment:** Suppressed demand for institutional premises such as schools, hospitals etc. should be further allowed:

- (i) Otherwise thousands of schools, hospitals and other organizations will either loose or will have their plans for new low-emissions solutions unexpectedly cancelled.
- (ii) It is not consistent to accept suppressed demand for HWT and not CWT. It contradicts the reason for allowing suppressed demand as it concerns the "same" beneficiaries – a kid is a kid without clean water no matter whether it drinks dirty water at home or in a school.
- (iii) CDM Methodology AMS III.AV makes no distinction in approach for HWT and CWT.
- (iv) Rather allow for suppressed demand in case of CWT but make the ER calculation more conservative in order to avoid overclaiming

**Response:** The methodology allows institutions to account suppressed demand baseline provided the institution are not connected with public distribution system - - unless justified that supplied water quality doesn't meet safe water definition (parameter SDWS 12).

**Comment:** Wouldn't it make sense to differentiate HNp between adults per household and children under 10 per household?

**Response:** The methodology has been revised and it is not required to differentiate as per age group of user.

**Comment:** Question: In the previous Annex 3 the project had to perform water quality testing within 6 months after project start and then quarterly from the start of the crediting period. How is this handled in the new methodology if crediting period starts e.g. 9 months after the start of the project?

**Response:** The methodology has been revised. It requires to conduct the test at least after 6 month of the project start date. In such a case it should at least after 6 months of project CP start date.

**Comment:** We understand this section that the test kits have to be approved and tested by a local laboratory even if they have already been approved or meet international (WHO) guidelines. Wouldn't that be redundant? In the old methodology an annual water quality test of local accredited laboratories was required? Do we understand this section right, that test kits can be used but only accredited laboratories can use them to perform the water quality tests?

**Response:** Testing kit should be tested for its accuracy once by the accredited laboratory. After testing by lab a trained staff can conduct the field test using these testing kits.

**Comment:** Exceeds a threshold that reduces over time with more conservative values: Year 1: 15%, Year 2: 12%, Year 3: 10%

**Response:** The methodology has been revised as suggested.

**Comment:** Why 5 hours? SODIS solutions often work for many hours outside lying in the sun. In our project in case of UV-intensive days they use it even for 2 cycles a day for about 8-9 hours.

**Response:** It doesn't apply to a specific technology, the project may seek deviation or revision to the methodology.

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**Comment:** We think it is very important to maintain suppressed demand eligibility for schools in particular, and for community water treatment more broadly. Please reach out if further discussion would be helpful. Thank you all again for your good work through the grievance process and Annex 3 edits, we are fully supportive and view this as beneficial for all stakeholders moving forward.

**Response:** The methodology allows institutions to account suppressed demand baseline provided the institution are not connected with public distribution system - - unless justified that supplied water quality doesn't meet safe water definition (parameter SDWS 12).

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**Comment:** We strongly recommend that revisions to TPDDTEC Methodology Annex 3 allow the continued application of suppressed demand for community

water treatment (CWT) alongside its application to household water treatment (HWT). While we appreciate the broader intent of tightening the requirements related to community treatment, and support many of the proposed changes under Annex 3, we find the exclusion of suppressed demand for CWT goes too far.

First, it is not logically consistent to accept suppressed demand for HWT and not CWT. By example, CDM Methodology AMS III.AV makes no distinction in approach for HWT and CWT.

Second, just as reported with households, a significant proportion of schools and other institutions inefficiently boil water with firewood, while a much larger proportion acknowledge that they would readily boil drinking water if only they could afford the cost. Without suppressed demand, Gold Standard will be incentivizing a higher-emissions trajectory whereby schools and institutions must transition to boiling before being eligible to benefit from low-emissions carbon-financed treatment alternatives.

Third, thousands of schools, institutions, and communities will either lose their existing provision of safe drinking water solutions, or will have their plans for new low-emissions solutions unexpectedly cancelled, if suppressed demand for CWT is excluded from Annex 3. These schools and institutions are clearly motivated to find viable water treatment solutions, and will be forced to transition to one of two suboptimal options: expensive and polluting boiling or again, drinking untreated water.

We are fully supportive of this grievance process and grateful to Gold Standard for taking necessary steps to ensure environmental integrity in crediting under TPDDTEC Annex 3. We also find that the simplifications in ER calculations and monitoring requirements, and the greater use of conservative default factors, will benefit implementers and make Annex 3 easier to use.

**Response:** The methodology allows institutions to account suppressed demand baseline provided the institution are not connected with public distribution system - - unless justified that supplied water quality doesn't meet safe water definition (parameter SDWS 12).

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**Comment:** a separate methodology is preferred to promote the uptake of projects. In its current format as an Annex it is 'hidden' in an energy demand monitoring methodology, which is not always the first link made by a potential project implementer

**Response:** the methodology has been released as a new independent methodology.

**Comment:** it may be too complex to monitor the collection time (e.g. a busy day or a national health crises, the queues are suddenly very long, must the water collected on that particular day then be excluded?) .. because of those complexities, monitoring will prescribe 250 m in most cases .. in this case the condition 1 km is also met. A proposed simplification is to provide the requirement that "the water in its improved form shall be available within a distance of 1 km, and only if this distance is 250 m or less, SDG 6.1.1 claims can be made.

**Response:** The methodology provides two criteria distance or 30 minutes travel time. The developer may choose the one most relevant to the project case.

**Comment:** So this is the quality of the water at source? It is recommended to better define source because what if water from e.g. a dam is the source and is distributed by a piped network to end-users, the water is treated prior to it entering the distribution network .. does the source then apply to the water after treatment or before – e.g. being in the dam?]

**Response:** The methodology includes a definition of water sources and further details on assessment in ANNEX -2: Definition of Water Sources.

**Comment:** does this imply the requirement to demonstrate the expected technical life of project technology?

**Response:** Yes

**Comment:** what if the project is the extension of an existing water distribution and supply network, connecting either commercial and institutional buildings as well as households through the installation of e.g. taps at household level or institutional level (e.g. hospitals, schools, etc.) – does the project boundary comprise the entire system, including the original/existing water supply and distribution network and sourcing system? Or only the extension of the network and the households/commercial and institutional buildings? Or only the households/commercial and institutional buildings that are equipped with a water access point connected to a piped water supply system?

**Response:** please refer to the revised methodology as new definition and category of the eligible technology have been provided. Such sources are not considered as CWT/CSW technologies

**Comment:** Can these and the CH4 emission also be excluded for purposes of simplification?

**Response:** The project may exclude Baseline emissions from any gases indicated in the table 1 for simplification.

**Comment:** it would be recommended to develop a list of default fNRBs, to simplify both estimation of ERs as well as the effort of the VVB

**Response:** Thanks for the suggestion.

**Comment:** but what about the fraction that boiled safe water in the baseline, clearly they are excluded from Cb? How is this accounted for?]

**Response:** Please refer to revised methodology. It requires to exclude the end user who boil the safe water in the baseline.

**Comment:** is it practical to measure the fraction of children under 10 per household? This would require annual updates to the baseline since children may be under 10 in year 2 but not in year 3? Or must this be taken into consideration when establishing the baseline that a volume of drinking water shall increase in two years for household X due to a child turning 11?

**Response:** The methodology has been revised and it is not required to differentiate as per age group of user.

**Comment:** Is there somewhere a definition of a project device? Would this e.g. include a tap that is connected to the local water distribution network?

**Response:** Included in the definition section of the methodology.

**Comment:** but what about other types of leakage? E.g. let's say the end user uses gas in the baseline to boil their water, what if they now in the project scenario use that gas for advanced cooking methodologies? Or even sell it to other people outside the project boundary?

**Response:** The revised methodology includes more details on leakage sources.

**Comment:** It is recommend annually as it can be included in the sampling of other annually monitored parameters - moreover, water-quality is key to the objective of the project and if in the case of a biannual test-result the fraction exceeds the allowable threshold, it will be difficult to establish when the deterioration of water quality started to occur and for that reason and for purposes of environmental integrity, all project water consumed since the last testing would have to be excluded from crediting .. I think testing this at least annually is a safeguard to the principle of the project as well as being in favour of project developer regarding early detection of defects ..

**Response:** Annual frequency has been adopted.

**Comment:** in case the project technology is piped water, the water supplied by the tap in a household is measured at a household level. Therefore I would not limit this parameter to CWT projects only, unless those project types are classified as CWT projects ..

**Response:** please refer to revised methodology a new section on definition has been included to provide more clarity.

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**Comment:** This should be an Annex or Methodology: From my point of view, in both cases the process of transition from existing projects to the new Annex and Methodology will take very long time until end of their crediting period. Should it be an rule update with immediate effective after a grace period (6months to 1 year)?

**Response:** this has been released as a new methodology and also application of Annex-3 is limited to grace period.

**Comment:** Equation 1: seem that the brackets are not in the correct order so the equation is not correct. Beside, TJ is  $10^{12}$  J then the division factor should be  $10^9$  instead of  $10^6$ . Please see trackchange in attached file.

**Response:** Corrected the typo error.

**Comment:** SE<sub>w,b,y</sub>: This value consider the energy from for increasing water temperature from 20oC to 100oC, but not yet include the energy consumption during 5 mins simmering as in footnote 8. Some typos in footnote 8 and 9 were fixed.

**Response:** It has been fixed in revised methodology

90/10 rule: Please specify clearly in the methodology if this requirement is applicable for a stand-alone/single VPA sampling or crossed sampling or both. The CDM guideline specify this matter and it has been debating between the PP and the Reviewer on the rule application.  
Parameter Number of individuals per household in the project boundary , page 18: I think this should be the monitored parameter but not ex-ante parameter. The frequency should be annual.

**Response:** It has clarified in section 4.2 and 4.3 of the revised methodology

Definition of user, page 27: I think weekly use of project technology would consider as rarely use.

**Response:** Included the new criteria as suggested