

# SUMMARY OF CHANGES: REDUCED EMISSIONS FROM COOKING AND HEATING V4.0

05 October 2021

The reduced emissions from cooking and heating [V4.0 methodology](#) replaces V3.1 of the Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) methodology. This document provides a summary of the key updates and relevant changes.

No	Section	Further clarification	Newly updated/changed
1.	Section 1   Definition	Definitions updated for: <ul style="list-style-type: none"> <li>– Continuous useful energy output</li> <li>– Double counting</li> <li>– Technical life</li> </ul>	
2.	Section 2   Scope, Applicability, and entry into force		The following technologies have been excluded from this methodology: <ul style="list-style-type: none"> <li>– Bio-digesters</li> <li>– Safe water supply and treatment</li> <li>– Improved fossil fuel cookstoves where fossil fuel is measured</li> <li>– Electric cooking technology</li> <li>– Biogas stoves</li> <li>– Bio-digesters</li> <li>– Plant oil fired stoves</li> <li>– Renewable fuel fired stoves where fuel is measured</li> </ul>
3.			Rated thermal efficiency shall be at least 20%
4.	Section 2.2   Applicability		Eligible project activities that use solid fossil fuel or other fossil fuel based improved cookstoves (e.g. switch from three-stone fire biomass stoves to LPG stoves) may only claim emission reductions for energy efficiency improvement aspect and shall assume the same baseline and project fuel for emission reduction calculations.
5.	Section 2.3   Safeguards		The national, regional and local regulatory frameworks used to provide the thermal energy services delivered in the project

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			boundary needs to be documented.
6.			No emission reductions can be claimed for the technology after its technical life has ended unless end users are provided with replacement technology
7.	Section 3.2   Emissions sources included in the project boundary	Project emissions from transportation of fuel/biomass shall be accounted if the transportation distance (including both long-distance and home delivery transport) is more than 200 km; otherwise they can be omitted.	
8.	Section 3.3   Demonstration of additionality	Refer to applicable guidelines for different project scales	Excluded the "first of its kind" which is defined that the adoption rate is less than 20% of the population in the target area
9.	Section 3.5.7   Selection and justification of baseline scenarios  Cross-effect		In project activities targeting multiple distributed technologies e.g. improved cookstoves and oven technologies, the cross-effect between the baseline and project scenarios including potential leakage must be accounted for.
10.	Section 3.9   Suppressed demand baseline scenario		The large scale project or commercial and/or institutional premises, applying this methodology is not allowed to claim suppressed demand baseline.
11.	Section 3.10   Emission reductions calculations	Clarification provided for ER calculation method for micro and small-scale project where the baseline and project fuel(s) are identical, and the default baseline fuel consumption is applied.	The wood/charcoal conversion ratio is excluded from the ER calculation.  Charcoal emission factors are provided.
12.			If project introduces fossil fuels, only emission reductions from efficiency improvement are eligible, i.e. the baseline and project fuel emission factor must be assumed to be the same.

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13.	Section 3.11   Leakage emissions		Alternative option of using default adjustment factor of 0.95 as leakage to the emission reductions
14.	Section 3.13   Renewal requirement	When a project applies for crediting renewal, the baseline fuel consumption must be reassessed.	
15.	Section 3.14   Baseline methodology  Data and parameters not monitored		ICS 3: Expected technical life of project technology
16.			ICS 4: Indoor air pollution (IAP) levels of the project technology (for projects where cooking will move from outdoor to indoor or where the project technology reduces ventilation)
17.			ICS 5: Avoidance of double counting or double claiming among project participants
18.			ICS 6: Avoidance of double counting or double claiming with other mitigation actions
19.			ICS 7: Regulatory framework for provision of thermal energy services
20.	Section 4   Monitoring methodology	Dissemination record has same role as total sales in non-commercial project.	
21.	Section 4.1.6   Monitoring data and information requirements		Usage Survey - use of other stoves (ICS 16): As part of the usage survey, the project developer must also collect data on the presence and usage practices of baseline and other non-project technology by end users and prepare descriptive statistics of these practices
22.	Section 4.2   Data and parameters monitored		ICS 15: Avoidance of double counting or double claiming among project technology end users
23.			ICS 16: Presence of stove stacking: where the baseline technology or other non-project technologies operate as backups or complementary units in parallel with project technologies ("stove stacking"), the project fuel consumption implications must be accounted for in the PFT

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24.		ICS 17: fNRB,i,y Requirements of the CDM TOOL30	
25.		ICS 18: Pb,y  Quantity of fuel that is consumed in baseline scenario b during year y:  Threshold value and cap value are introduced: <ul style="list-style-type: none"> <li>- <b>Threshold value:</b> 0.75 tonnes/person*year of fuelwood</li> <li>- <b>Cap value:</b> 0.95 tonnes/person*year of fuelwood</li> </ul>	
26.	Section 4.4    General requirements for sampling	Minimum sample size is 30 samples or whole group (if lower than 30)	90/10 rules to be applied for the sampled parameters unless mentioned otherwise in the methodology (90% confidence interval and a 10% margin of error)  The parameter specific fuel saving and specific emission reduction under Method 1 and 3 (SFS_p,b,y and SER_b,p,y,CO2) could apply 90/30 rules or 90% confidence rule.
27.			Cross VPA sampling is not allowed across groups larger than 10 VPAs or large scale PoAs
28.	Annex 4    Aging test approach for project fuel update		Limited to small-scale projects only (i.e. those projects that result in annual energy savings up to 180GWhth as a result of switching to the project technology) and Gold Standard micro-scale projects.