	CALL FOR INPUT
Name of submitter	Elisa Derby
Affiliated organization of submitter	Clean Cooking and Climate Consortium (4C)
Email of submitter	EDerby@cleancooking.org
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Document reference number and title: (Recommendation from the MEP to SBM020)
Draft mechanism methodology: Energy efficiency measures in household cooking (version 01.0)

Item	Section no. (as indicated in the document)	Paragraph/Table/Figure no. (as indicated in the document)	Comment (including justification for change)	Proposed change (including proposed text)
1	COVER NOTE	Paragraph 13, Table 1 ("Comparison of applicability conditions between the CDM methodology and the Article 6.4 mechanism methodology")	Table 1 indicates that, unlike CDM methodology AMS-II.G, which applies to both household and institutional cooking projects, the proposed draft Article 6.4 methodology (A6.4-MEP013-A02) is limited to household cooking events. We recommend revising A6.4-MEP013-A02 to expand its applicability to institutional cooking projects. We recommend that a version of the proposed institutional approach linked below be considered for integration into both A6.4-MEP013-A02 and the CLEAR methodology (A6.4-PNM004). While this approach was developed in the context of A6.4-PNM004 and would need to be adapted to fit the structure and requirements of A6.4-MEP013-A02, it could serve as a useful starting point for developing an institutional approach under that methodology. This proposed institutional approach was also sent separately as a PDF attachment to A6.4mechanism-meth@unfccc.int. Link: https://drive.google.com/file/d/1uNmoJOX0WZwmzvSx2E92Qfy6Lm22iZeA/view?usp=sharing	Expand the applicability of A6.4-MEP013-A02 to institutional cooking projects and consider integrating the linked institutional approach into both A6.4-MEP013-A02 and CLEAR (A6.4-PNM004). This proposed institutional approach was also sent separately as a PDF attachment to A6.4mechanism-meth@unfccc.int. Link: https://drive.google.com/file/d/1uNmoJOX0WZwmzvSx2E92Qfy6Lm22iZeA/view?usp=sharing

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2	NON-PERMANENCE PROVISIONS	Section 10 (non-permanence provisions)	We urge the SB and the MEP to prioritize operational progress over new, experimental requirements previously unseen in the clean cooking sector, specifically those related to non-permanence and reversal risks for emission reductions activities. Newly suggested alternatives on how to assess the non-permanence and reversal risks lack a unified scientific consensus, and practical tools are not sufficiently mature to be implemented without causing unacceptable delay and jeopardizing the systemic project viability for decentralized energy projects. For example, the concept of a buffer pool makes sense in the context of REDD projects, where there is a clearly delineated forest area that can be monitored over time to determine whether actual impacts differ from the baseline scenario. In those cases, buffer pools can be activated if reversals occur. However, for most cookstove projects, there is no way to directly monitor the actual project's impacts on forest carbon stock to determine how or when a buffer pool should be activated. Imposing new theoretical frameworks now, without a proven, workable, and broadly accepted scientific approach, would contradict the SBM's own mandate to minimize transaction costs and ensure a stable and predictable investment climate. Such a fundamental regulatory misalignment risks stalling the transition process and undermines the usability of the mechanism, effectively barring participation from host Parties that Article 6.4 mechanism was designed to support.	Exempt cookstove projects from non-permanence requirements. If the science for addressing non-permanence in energy demand sectors evolves, the methodology can be updated as part of a scheduled review. To do otherwise is to prioritize a theoretical debate over immediate climate action.

3	COVER NOTE	Paragraph 41 (Wood to charcoal conversion) and Appendix 7>paragraph 21	While a charcoal conversion factor 4:1 is appropriate for a more industrialized context, 4C research supports a 6:1 charcoal conversion factor in the LMIC context. In 2024, CCA and 4C partner SEI conducted a charcoal conversion factor literature review and analysis, which supports the conclusion that a 6:1 ratio is more realistic than the current 4:1 UNFCCC default. The Figure on page 23 here (https://cleancooking.org/wp-content/uploads/2025/06/CLEAR-revised-EOD-June-2025.pdf) presents preliminary results from this analysis, which considers recent studies of charcoal conversion and loss in Sub-Saharan Africa (sources listed below). In this chart, circle size corresponds to the sample size of each study, with countries listed along the X axis. The Y axis represents conversion efficiency, with 17% corresponding to a 6:1 oven-dry wood to charcoal conversion factor. Both the mean and the median values of the individual kilns measured in the studies generally agree with the 6:1 ratio. In addition, studies of traditional kilns shown in the figure include measurements taken in field conditions and measurements taken in more controlled settings. We would expect studies in field conditions to be more indicative of real charcoal production. If we disaggregate, we find that three of the four studies undertaken in field conditions show lower conversion efficiency, with ratios greater than 6:1 (Ghana, Malawi and Rwanda), while the studies that documented higher conversion efficiencies (i.e., lower conversion ratios) were all conducted in controlled settings (two of the three studies from Kenya, and the studies from Thailand, DRC, and Zambia). As noted, the cited example of Urban et al. 2026 demonstrated a conversion factor of greater than 7:1. Based on these results from actual field data, 6:1 is a conservative assumption. References: Bailis, Robert. “Fuel from the Savanna: The Social and Environmental Implications of the Charcoal Trade in Sub-Saharan Africa.” PhD, University of California, 2005. ESMAP. “Rwanda: Commercialization of Improved Charcoal Stoves and Carbonization Techniques - Mid-Term Progress Report.” Washington DC: The Energy Sector Management	Allow use of a 6:1 charcoal conversion factor.

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			Assistance Programme of the World Bank, December 1991. Hibajane, S. H. "Assessment of Earth Kiln Charcoal Production Technology." Energy, Environment, and Development Series. Stockholm: Stockholm Environmental Institute, 1994. Pennise, D., K. R. Smith, J. P. Kithinji, M. E. Rezende, T. J. Raad, J. Zhang, and C. Fan. "Emissions of Greenhouse Gases and Other Airborne Pollutants from Charcoal Making in Kenya and Brazil." Journal of Geophysical ResearchAtmosphere 106 (2001): 24143–55. Schenkel, Y., P. Bertaux, S. Vanwijnbserghe, and J. Carre. "An Evaluation of the Mound Kiln Carbonization Technique." Biomass and Bioenergy 14, no. 5–6 (1998): 505–16. https://doi.org/10.1016/S0961-9534(97)10033-2. Smith, K. R., D. P. Pennise, P. Khummongkol, V. Chaiwong, K. Ritgeen, J. Zhang, W. Panyathanya, R. A. Rasmussen, and M. A. K. Khalil. "Greenhouse Gases from Small Scale Combustion in Developing Countries: Charcoal Making Kilns in Thailand." Research Triangle Park, NC: US EPA, 1999. Urban, J., Berger, J., Botha, Y., Boafo-Mensah, G., Agbedor, P., Mkwate, A., Bentson, S., and MacCart, N. (2026). Quantifying charcoal conversion factors throughout the value chain in Malawi and Ghana. Biomass and Bioenergy. https://doi.org/10.1016/j.biombioe.2025.108914 Urban, J., Berger, J., Botha, Y., Boafo-Mensah, G., Mkwate, A., Tiewayo, J., Bentson, S., and MacCarty, N. (2024). White Paper: Quantifying conversion factors for the value chain of charcoal production in Malawi and Ghana. Oregon State University, Aprovecho Research Center, SunFire Energy Malawi, and Council of Scientific Research-IIR Ghana. Available at: https://ir.library.oregonstate.edu/concern/technical_reports/2f75rj10q	

4	BASELINE SCENARIO	Appendix 7, paragraph 13 and Table 3 (“Baseline scenario for fuel types eligible under the mechanism methodology”)	Based on the latest available evidence (see references below), 4C considers the 0.5 tonnes air-dried wood per person*year baseline default value for fuelwood consumption to be conservative while still accounting for suppressed demand. In the context of cookstove carbon projects, accounting for suppressed demand means using a default baseline fuel consumption value that represents the amount of cooking fuel necessary to provide for basic human needs rather than the actual amount of fuel used for cooking, which may be lower than the default. The 0.5 tonnes/(person*year) baseline default value is set at the minimum per-capita energy consumption required for cooking to meet basic human needs. References: Berkeley Air Monitoring Group. (2019). Acciones Nacionales Apropiadas de Mitigación (NAMA) en los sectores de generación de energía y su uso final en el Perú – Diagnóstico de la situación actual de las cocinas mejoradas instaladas en el marco de los programas del estado y la evaluación de los valores de factor de emisiones de leña y fracción de biomasa no renovable (fNRB) para el Perú. Report commissioned by the Ministerio de Energía y Minas del Perú. Berrueta, V. M., Edwards, R. D., & Masera, O. R. (2008). Energy performance of woodburning cookstoves in Michoacan, Mexico. Renewable Energy, 33(5), 859–870. https://doi.org/10.1016/j.renene.2007.04.016 Chagunda, M. F., Kamunda, C., Mlatho, J., Mikeka, C., & Palamuleni, L. (2017). Performance assessment of an improved cook stove (Esperanza) in a typical domestic setting: Implications for energy saving. Energy, Sustainability and Society, 7(1), 19. https://doi.org/10.1186/s13705-017-0124-1 Garland, C., Jagoe, K., Wasirwa, E., Nguyen, R., Roth, C., Patel, A., Shah, N., Derby, E., Mitchell, J., Pennise, D., & Johnson, M. A. (2015). Impacts of household energy programs on fuel consumption in Benin, Uganda, and India. Gizachew, B., & Tolera, M. (2018). Adoption and kitchen performance test of improved cook stove in the Bale Eco-Region of Ethiopia. Energy for Sustainable Development, 45, 186–189. https://doi.org/10.1016/j.esd.2018.07.002 Johnson, M., Garland C., Pennise, D.,	Use a global default for baseline fuelwood consumption of 0.5 tonnes/(person*year) instead of 0.42 tonnes/(person*year). 0.0012 TJ useful energy delivered/(personyear) [*] is assumed to be equivalent to 0.5 tonnes/(person*year) of air-dried wood, or 0.0078 TJ/(person*year). [*] 0.5 tonnes of air-dried fuel wood with 0.0156 TJ/tonnes NCV, and thermal efficiency of 15%.

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			Reynolds, E, Field Performance of a Modified Philips Stove in Gisenyi, Rwanda. (2015) Prepared for Winrock International, the United States Environmental Protection Agency, and the Global Alliance for Clean Cookstoves. Johnson, M., Mburu, M., Piedrahita, R., Rossanese, M., Delapena, S. Kitchen Performance Test and Stove Usage Monitoring of Inyenyeri Customers in the Kigeme Refugee Camp. Johnson, M. A., Pilco, V., Torres, R., Joshi, S., Shrestha, R. M., Yagnaraman, M., Lam, N. L., Doroski, B., Mitchell, J., Canuz, E., & Pennise, D. (2013). Impacts on household fuel consumption from biomass stove programs in India, Nepal, and Peru. Energy for Sustainable Development, 17(5), 403–411. https://doi.org/10.1016/j.esd.2013.04.004 Lam, N. L., Upadhyay, B., Maharjan, S., Jagoe, K., Weyant, C. L., Thompson, R., Uprety, S., Johnson, M. A., & Bond, T. C. (2017). Seasonal fuel consumption, stoves, and enduses in rural households of the far-western development region of Nepal. Environmental Research Letters, 12(12), 125011. Uwizeyimana, V., et al. (submitted). A seasonal inventory of household fuel consumption and associated emissions using digital methods in Rwanda. Teune, B., Ha, H. T., Salinas, D., McLean, K., & Bailis, R. (2020). Low-cost interventions to reduce emissions and fuel consumption in open wood fires in rural communities. Energy for Sustainable Development, 58, 119–128. Wallmo, K., & Jacobson, S. K. (1998). A social and environmental evaluation of fuel efficient cook-stoves and conservation in Uganda. Modi, V., McDade, S., Lallement, D., and Saghir, J. (2005). Energy Services for the Millennium Development Goals. Energy Sector Management Assistance Programme, United Nations Development Programme, UN Millennium Project, and World Bank.	