Comprehensive Lowered Emission Assessment and Reporting (CLEAR) Methodology for Cooking Energy Transitions

Clean Cooking and Climate Consortium (4C)

ETHOS, January 2025

Sunday Breakout Session

CLEAN COOKING ALLIANCE

EPA

BERKELEY AIR MONITORING GROUP

CLIMATE & CLEAN AIR COALITION TO REDUCE SHORT-LIVED CLIMATE POLLUTANTS

SEI Stockholm Environment Institute

United Nations Climate Change

Recap: Timeline

Finalization

Jul – Nov 2024

4C solicited ongoing feedback to refine methodology

This involved:

- Formal public commenting period
- Methodology revisions based on feedback

Submission & Approval

Nov 2024 – TBD

CLEAR is currently under review for approval and publication, starting with Gold Standard and Verra

ICVCM review pending publication

Planned submission to UNFCCC in the coming months!

Recap: Quantification of ERs

Methodology parameters are calculated differently for CTEC and non-CTEC projects and therefore are presented separately in the CLEAR methodology.

CTEC Project

Continuously measures fuel or energy consumption directly on all project technologies, in all project households.

Using built-in or external data loggers (also known as metering), including for electric cookstoves, LPG, ethanol, and biogas, or through fuel sales records.

Non-CTEC Project

Does NOT track all project cookstoves through energy consumption data loggers or fuel sales records.

Recap: Quantification of ERs

Non-CTEC:

Emissions reductions for the project during year *y* = (Baseline emissions during year *y* − Project emissions during year *y*) × Adjustment to account for the Hawthorne Effect × (1 − % deduction to account for leakage during year *y*)

CTEC:

Emissions reductions for the project during year *y* = (Baseline emissions during year *y* − Project emissions during year *y*) × (1 − % deduction to account for leakage during year *y*)

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Recap: CLEAR overview

- **Adoption/usage/stacking for CTEC**: All stoves in all households must be metered, and use that data to back calculate baseline, or use that data as part of the baseline/project KPT measurements
- **Adoption/usage/stacking for non-CTEC**: All must use project KPTs, adjusted for Hawthorne effect
- **fNRB**: Multiple MoFuSS options, TOOL30 disallowed
- **Emissions factors**: (1) Point of use and (2) Upstream (production, processing, transportation, and distribution)

Additional revisions made based on public feedback

CLEAR revisions

- **Energy consumption**: No survey-only option; KPTs required for all non-CTEC
- **Baseline KPT caps and flags**: Now global
- **Evolving baselines**: Captures mismatches between baseline and actual households; control household requirements removed
- "**User**" now defined
- **Project technology day caps (90/75%)** based on customer support activities
- **Minimum project stove thermal efficiencies**: 20% for griddle/plancha; 30% for charcoal; 25% for all other biomass

CLEAR revisions

- **Additionality**: Follow carbon-crediting program rules
- **Seasonality**: Baseline scenario must track relative fuel use at different times of the year, monitoring plan must incorporate and be justified on PICS
- **Institutional and commercial** stoves application
- **Transportation** included in upstream emissions
- **Marginal fNRB** placeholder added
- **Artisanal stove requirements**: 3 randomly selected samples of each model required for ISO and CCT testing

For more information on the CLEAR methodology and recent updates:

https://cleancooking.org/4C/methodology

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