

## Agenda item 4.1 (a)

Paragraph 26 of the annotated agenda

Concept note: Ensuring the consistency in definitions of market penetration metrics and thresholds for additionality demonstration

**CDM EB 113**

Bonn, Germany, 8 to 11 March 2022



## Background (EB 108)

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- EB108 requested MP to:
  - a) Propose **definitions** for penetration of technology/measure with a view to include them in the **CDM glossary of terms**;
  - b) Propose a consistent approach to the **data vintage and data sources** to include them in **CDM PS or PCP**; (MP84 provided inputs, which will be presented to a future EB meeting)
  - c) Revise "**TOOL23: Additionality of first-of-its-kind (FOIK) project activities**" and "**TOOL24: Common practice**" to explore including an appropriate penetration threshold for technology/measure (e.g. 2.5 per cent).



## Background (EB 110)

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- EB110 requested:
  - a) MP to **analyze existing methodologies/tools** with regard to consistency in the use of these terms and related guidance, and to **recommend revision to methodologies/tools**, as appropriate, based on the analysis.
  - b) Sec, in conjunction with these revisions, to **propose draft revised glossary** (containing revised definitions of the terms associated with market penetration) that is consistent with methodologies/tools, for consideration by the Board at a future meeting.
- A call for public input was launched from 21 February to 7 March 2022. No input was received.



# Purpose

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- To address the mandates provided at EB 108 and EB 110 and make a recommendation to the Board.



## Diffusion thresholds applied for automatic additionality

- Different terms (market penetration, market share, and penetration rate) are interchangeably used and thresholds are not always comparable for similar technologies.

Technology/measure	Threshold value	CDM meth and tool
Solar Water Heaters, High efficiency biomass fired system, Solar lamps	≤ 5%	TOOL19
Efficient cookstoves	≤ 5%	AMS I.E, AMS II.G
Electric and hybrid vehicles	≤ 5%	AMS III.C
E-bikes	≤ 5%	AMS III.BM
Improved efficiency of vehicle fleets	≤ 5%	AMS III.BC
Renewable energy power generation in national grids or isolated grid	≤ 2%	TOOL32
Rural electrification using renewable energy	≤ 50%	
LNG buses	≤ 5%	AMS III.AY
Increasing composition of blend in cement production	≤ 5%	ACM0005
Agricultural waste as feed stock for paper, cardboard and bio oil production	≤ 10%	AM0057



## Recommended definitions on market penetration metrics

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- a) **Market penetration:** the percentage share of a specific technology in the **'target market size'** during a specified period (e.g. percentage of annual sales in the target market) or at a specific point of time (e.g. percentage of stock in the target market).
- b) **Market share:** the percentage share of a specific technology in the **'total market size'** during the specified period (e.g. percentage of annual sales in the total market) or at a specific point of time (e.g. percentage of stock in the total market).
- **'Target market size'** is the potential size of the market for a specific technology in the total market in the applicable geographical area (hence, it is usually smaller than the total market size).
- Product and technology constraints;
  - Socio-economic characteristics;
  - Geographical, topographical, and climate conditions;
  - Cultural, demographic, and behavioral conditions



# Revisions to methodologies and tools

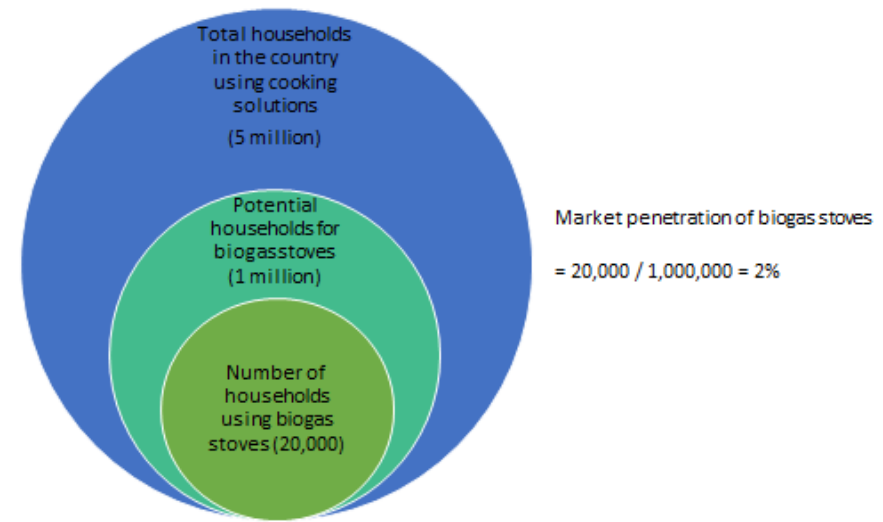
- Consistency in the use of the terms, thresholds and related guidance
  - a) **2.5 per cent** threshold for **stock** data
  - b) **5 per cent** threshold for **sales** data (3 years average of sales)

## 1. Tool 19 (microscale additionality tool)

The **market penetration<sup>1</sup>** of the proposed technology (i.e. Solar water heating system, Clean and energy efficient cookstoves, High efficiency biomass fired devices (e.g. energy efficient cookstoves) and Solar lamps) is equal to or less than **2.5 per cent** of the technologies/measures (providing similar services **to end-users**) **based on stock of units, or 5 per cent based on annual sales of units**, in the **applicable geographic area region** in order to be considered as automatically additional.

<sup>1</sup> ~~Refers to proportion of stock of functional equipment at the user end, also termed as market saturation.~~

**Example:** Market penetration determined as % of biogas stoves in the target market size, based on stock data.



# Revisions to methodologies and tools

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## 2. AMS-III.C (electric and hybrid vehicles)

Demonstrate ex ante that **the market share penetration of project electric/hybrid vehicles is equal to or smaller than 5 per cent** of the vehicles of the same category (e.g. if project vehicles are electric scooters, market **share penetration** of electric two wheelers is equal to or smaller than 5 per cent of all motorized two wheelers, irrespective of the manufacturer, **determined on annual sales data**) in the region.

**Example:** Market penetration determined as % of electric vehicles in the target market size, based on sales data, in the applicable geographical area.

Table: New passenger cars by fuel type in country X in 2019, 2020 and 2021

	Petrol	Diesel	Electric
2019	67%	32%	1%
2020	62%	30%	8%
2021	59%	25%	16%
Average	62.7%	29.0%	8.3%





### 3. Tool 23 (FOIK tool)

- Currently, TOOL23 allows only the very first project in the applicable geographical area applying the technology to qualify. MP considered an additional option for assessing first of its kind (2.5% threshold) as a complimentary approach.

A proposed project activity is the first of its kind in the applicable geographical area if:

- (a) The project is the first in the applicable geographical area that applies a technology that is different from technologies that are implemented by any other project, which are able to deliver the same output and have started commercial operation in the applicable geographical area before the project design document (CDM-PDD) is published for global stakeholder consultation or before the start date of the proposed project activity, whichever is earlier. **Alternatively, the market penetration of the technology in terms of the stock is less than or equal to 2.5 per cent of the target market size.;**

## Impacts

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- Improve the understanding of market penetration and market share;
- Ensure consistent use of the terms and thresholds across CDM methodologies and tools for demonstrating additionality.



## Recommendations to the Board

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- The MP recommended that the Board consider the concept note and provide further guidance.

## Subsequent work and timelines

- Following guidance from the Board, MP will prepare revisions to relevant methodologies and tools, for consideration at a future meeting of the Board.
- With regard to the proposed revision to the TOOL24 (common practice), MP will continue the work and conclude at its next meeting.

