

## TOOL19

### Methodological tool

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# Demonstration of additionality of microscale project activities

Version 10.0



**United Nations**  
Framework Convention on  
Climate Change

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## 1. Introduction

1. The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP), at its fifth<sup>1</sup> and sixth session<sup>2</sup> established simplified modalities for demonstrating additionality for project activities up to 5 MW that employ renewable energy as their primary technology, for energy efficiency project activities that aim to achieve energy savings at a scale of no more than 20 GWh per year and for other project activities that aim to achieve GHG emission reductions at a scale of no more than 20 ktCO<sub>2</sub>e per year. This methodological tool provides a general framework to demonstrate and assess the additionality of these project activities.

## 2. Scope, applicability, and entry into force

### 2.1. Scope

2. This methodological tool provides simplified modalities for demonstrating additionality for the project activity which meets one of the following criteria:
  - (a) Type I: Project activities up to 5 MW that employ renewable energy as their primary technology;
  - (b) Type II: Energy efficiency project activities that aim to achieve energy savings at a scale of no more than 20 GWh per year; or
  - (c) Type III: Other project activities not included in Type I or Type II that aim to achieve GHG emissions reductions at a scale of no more than 20 ktCO<sub>2</sub>e per year.

### 2.2. Applicability

3. This tool covers all technologies/measures that meet the conditions in paragraphs 11-13 below irrespective of the scale of the approved CDM methodology applied to the project activity.
4. A project activity with more than one component, where each component meets the microscale threshold, is eligible as microscale CDM project activity. The sum of the size of components of a project activity belonging to the same type (i.e. installed capacity for Type I, energy savings for Type II and emission reductions for Type III) shall not exceed the microscale thresholds for the respective type.
5. The tool is not applicable to technologies/measures included in approved methodologies "AMS-III.V: Decrease of coke consumption in blast furnace by installing dust/sludge recycling system in steel works", "AMS-III.P: Recovery and utilization of waste gas in refinery facilities", "AMS-III.Q: Waste Energy Recovery (gas/heat/pressure) Projects" and "AMS-III.W: Methane capture and destruction in non-hydrocarbon mining activities".
6. Microscale CDM project activities shall demonstrate that they are not a debundled component of a small-scale (SSC) CDM project activity by applying the criteria in the

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<sup>1</sup> Refer to decision 2/CMP.5, paragraph 24.

<sup>2</sup> Refer to decision 3/CMP.6, paragraphs 38 and 39.

methodological tool “TOOL20: Assessment of debundling for SSC project activities”, for example by suitably considering microscale thresholds in the place of SSC thresholds (EB 62, para 48). In the case of bundled projects, microscale CDM project activity refers to individual projects within the bundle and requirement under paragraph 10<sup>3</sup> of the TOOL20 is not applicable.

### 2.3. Entry into force

7. The date of entry into force is the date of the publication of the EB 115 meeting report on 8 September 2022.

## 3. Normative references

8. Project participants shall follow the applicable provisions for the demonstration of additionality in the CDM project standard for project activities and CDM project standard for programmes of activities. This tool also refers to the following documents:
  - (a) “TOOL20: Assessment of debundling for SSC project activities”;
  - (b) “General Guidelines for SSC CDM methodologies”.

## 4. Definitions

9. The definitions contained in the Glossary of CDM terms shall apply.
10. For the purpose of this document, the following definitions apply:
  - (a) **Microscale CDM project activities** – A small-scale or large-scale clean development mechanism (CDM) project activity or a project activity under a programme of activities (CPA of a PoA) that meets the requirements specified in paragraph 11, 12 or 13 below;
  - (b) **Special underdeveloped zone (SUZ)** – SUZ is a region in the host country (zone, municipality or any other designated official administrative unit) identified by the government in official notifications for development assistance including for planning, management, and investment satisfying any one of the following conditions using the most recently available data:
    - (i) The proportion of population with income (PPP)<sup>4</sup> less than USD 2 per day in the region is greater than 50 per cent;

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<sup>3</sup> This means that the following paragraph of the TOOL20 is not applicable: “If a proposed small-scale project activity is deemed to be a debundled component in accordance with paragraph 2 above, but total size of such an activity combined with the previous registered small-scale CDM project activity does not exceed the limits for small-scale CDM project activities as set in paragraph 6(c) of the decision 17/CP.7,3 the project activity can qualify to use simplified modalities and procedures for small-scale CDM project activities”.

<sup>4</sup> Purchasing power parity.

- (ii) The GNI per capita in the country is less than USD 3000<sup>5</sup> and the population of the region is among the poorest 20 per cent in the poverty ranking of the host country as per the applicable national policies and procedures;<sup>6</sup>
- (iii) The proportion of population in the region with income less than the national poverty line used by the host country for reporting on the sustainable development goals (SDGs)<sup>7</sup> is greater than 50 per cent;

In case where SUZs have already been approved by Executive Board (hereinafter referred to as the Board) of the clean development mechanism (CDM)<sup>8</sup> there is no need for the project participant to provide proofs as indicated above to demonstrate that the region is demarked as SUZ in the host country;

- (c) **Communities** – Refers to a body or a group with a common interest located in a particular area served by the technology/measure (e.g. group of households, commercial facilities such as shops, public services/buildings).

## 5. Methodology procedure

- 11. Project activities that employ renewable energy technology up to 5 MW installed capacity are additional if any one of the conditions below is satisfied:
  - (a) The geographic location of the project activity is in one of the least developed countries or the small island developing States (LDCs/SIDS) or in a SUZ of the host country;
  - (b) The project activity is an off-grid activity supplying energy to households/communities (less than 12 hours' grid availability per 24 hours is also considered "off-grid" for this assessment);
  - (c) The project activity consists of one or more of the following technologies/measures<sup>9</sup> for distributed energy generation (not connected to a national or regional grid) where end users are households, communities or small and medium-sized enterprises (SMEs);
    - (i) Solar technologies (photovoltaic and solar thermal electricity generation);
    - (ii) Building-integrated wind turbines or rooftop wind turbines;
    - (iii) Micro/pico-hydro;

<sup>5</sup> PPP or the World Bank atlas method or another comparable method.

<sup>6</sup> Information on per capita income or other economic indicators used for the ranking purposes shall be provided in USD.

<sup>7</sup> <<http://www.un.org/sustainabledevelopment/sustainable-development-goals/>>.

<sup>8</sup> Refer to Procedure: Submission and consideration of microscale renewable energy technologies for automatic additionality, to know process for the Board to consider and approve the SUZs proposed by DNAs.

<sup>9</sup> A stakeholder may propose additional technologies/measures to be added under positive list requesting a revision to this methodological tool.

- (iv) Micro/pico-wind turbine;
  - (v) PV-Wind hybrid;
  - (vi) Geothermal;
  - (vii) Biomass gasification/biogas;
  - (viii) Solar water heating system;<sup>10</sup>
  - (ix) Clean and energy efficient cookstoves.<sup>11</sup>
- (d) The project activity employs specific renewable energy technologies/measures recommended by the host country designated national authority (DNA) and approved by the Board to be additional in the host country. The following conditions shall apply for DNA recommendations:
- (i) “Specific renewable energy technologies/measures” refers to grid connected renewable energy technologies<sup>12</sup> of installed capacity equal to or smaller than 5 MW;
  - (ii) The ratio of installed capacity of the specific grid connected renewable energy technology in the total installed grid connected power generation capacity in the host country shall be equal to or less than three per cent;<sup>13</sup>
  - (iii) Most recent available data on the percentage of contributions of specific renewable energy technologies shall be provided to demonstrate compliance with the three per cent threshold. In no case, shall data older than three years from the date of submission be used;
  - (iv) Technologies/measures recommended by DNAs and approved by the Board to be additional in the host country remain valid for three years from the date of approval. However, additionality of eligible project activities applying the methodological tool remains valid for the entire crediting period;
  - (v) DNA submissions shall include the specific grid connected renewable electricity generation technologies that are being recommended and provide the required data as indicated above (e.g. wind power, biomass power, geothermal power, hydropower).

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<sup>10</sup> Further conditions to check the penetration rate as specified in appendix of this document applies.

<sup>11</sup> See footnote 10 above.

<sup>12</sup> Renewable technologies that do not generate electricity, such as heating and cooling technologies, are not eligible.

<sup>13</sup> For example, if the ratio of total installed capacity of all grid-connected hydropower plants with the capacity equal to or smaller than 5 MW and the national grid-connected installed electricity generation capacity is less than three per cent in a host country then microscale hydropower is eligible for DNA recommendation in that host country.

12. Energy efficiency project activities that aim to achieve energy savings at a scale of no more than 20 GWh per year are additional if any one of the conditions below is satisfied:
- (a) The geographic location of the project activity is in an LDC/SIDS or SUZ of the host country;
  - (b) The project activity consists of one or more of the following technology/measures<sup>14</sup> related to energy efficiency where end users of the technology/measure are households, communities or SMEs:
    - (i) High efficiency biomass fired devices (e.g. energy efficient cookstoves<sup>15</sup>);<sup>16</sup>
    - (ii) Micro-irrigation systems;
    - (iii) Energy efficient pump-set for agriculture.
13. Type III project activities that aim to achieve emission reductions at a scale of no more than 20 ktCO<sub>2</sub>e per year, are additional if any one of the following conditions is satisfied:
- (a) The geographic location of the project activity is an LDC/SIDS or SUZ of the host country;
  - (b) The project activity consists of one or more of the following technology/measures<sup>17</sup> related to an emission reduction activity where end users of the technology/measure are households, communities or SMEs:
    - (i) Solar lamps;<sup>18</sup>
    - (ii) Biogas digesters.

## 6. Application of microscale thresholds at unit level of CPAs

14. For CPAs applying microscale thresholds at the unit level rather than at the aggregate level of the CPA, the term 'project activities' in paragraphs 4, and 11 to 13 above shall be read as 'units'.<sup>19</sup>
15. If each of the units contained in the CPA satisfies the condition to qualify as a 'microscale CDM unit', then the coordinating/managing entity is not required to demonstrate compliance of the CPA with the microscale or small-scale thresholds at the aggregate

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<sup>14</sup> A stakeholder may propose additional technologies/measures to be added under positive list requesting a revision to this methodological tool.

<sup>15</sup> All single pot or multi pot portable or in-situ cookstoves with rated efficiency of at least 25 per cent or higher.

<sup>16</sup> Further conditions to check the penetration rate as specified in appendix of this document applies.

<sup>17</sup> A stakeholder may propose additional technologies/measures to be added under positive list requesting a revision to this methodological tool.

<sup>18</sup> Further conditions to check the penetration rate as specified in appendix of this document applies.

<sup>19</sup> Units are also referred to as "independent subsystems" or "technology/measures" in CDM regulatory documents.

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level of the CPA. In such cases, the requirements related to debundling stated in paragraph 6 above do not apply.



## Appendix. Determination of penetration of proposed technology/measure

1. The market penetration of the proposed technology is equal to or less than 2.5 per cent of the technologies (providing similar services to end-users) **based on annual sales of units or 1.5 per cent based on stock of units**, in the applicable geographic area <sup>1</sup> in order to be considered as automatically additional. The stock data should be used only if there is no sales data.
2. The market penetration shall be determined using one of the following options:
  - (a) Official statistics or reports, relevant industry association reports or peer-reviewed literature;
  - (b) Results of a sampling survey conducted by project participants or a third party as per the latest version of “Standard: Sampling and surveys for CDM project activities and programme of activities”; covering technologies/measures providing similar services as the project technology/measure.
3. If the market penetration is determined using the data based on annual sales of units, the most recent three years’ data available at the time of submission of CDM-PDD or CDM-CPA-DD for validation/inclusion shall be used. This period is considered necessary to capture variations of the sales data from year to year. Exceptionally, historical sales data covering less than three years, but a minimum of one year may be used with due justifications (e.g. demonstrated unavailability of data despite the efforts made).
4. To determine the market penetration using the data based on the stock of units, the most recent data available at the time of submission of the CDM-PDD or CDM-CPA-DD for validation/inclusion, shall be used, and the data vintage used shall not include data older than three years prior to: (a) the start date of the CDM project activity; or (b) the start of validation/inclusion, whichever is earlier.

### Box 1. Non-binding best practice example 1

Project technology: Biogas stoves

The installation and use of biogas stoves may be limited to the rural area of host country X (e.g. households with availability of animal manure and land for installing biodigesters), thus excluding urban areas.

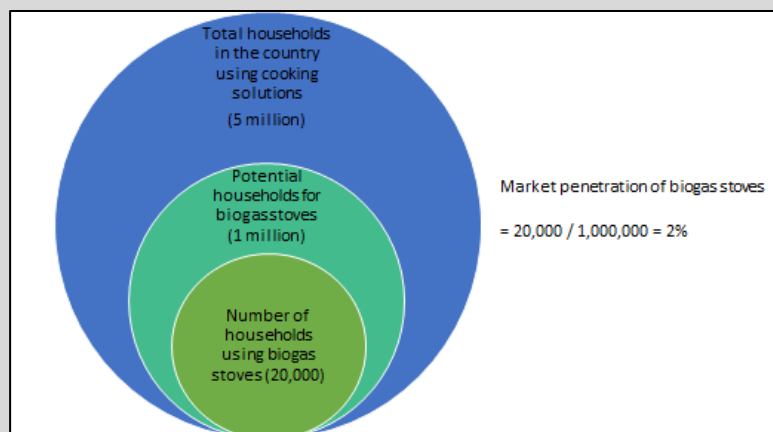
Even though the total market size is the number of households using cooking solutions in host country X, it cannot be considered that all of them will be potential consumers of the biogas stoves. The potential target market for biogas stoves may include households using traditional three-stone stoves, improved cook stoves, liquefied

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<sup>1</sup> Applicable geographical area should be the entire host country. If the project participants opt to limit the applicable geographical area to a specific geographical area (such as province, region, etc.) within the host country, then they shall provide justification on the essential distinction between the identified specific geographical area and rest of the host country.

petroleum gas (LPG) stoves and electric stoves, and which have good availability of biomass waste as well as land for the installation of biodigesters. The estimation of the “market penetration” of the biogas stoves, taking account of the “target market size”, are given in the figure below.

**Figure. “Market penetration” related to the target market size in the host country X**



As shown in the figure above, the market penetration of biogas stoves is 2 per cent (based on stock). Therefore, it can be considered that the technology has market penetration of more than 1.5 per cent and is not automatically additional.

**Figure 1. Microscale additionality test for Type-I project activities**

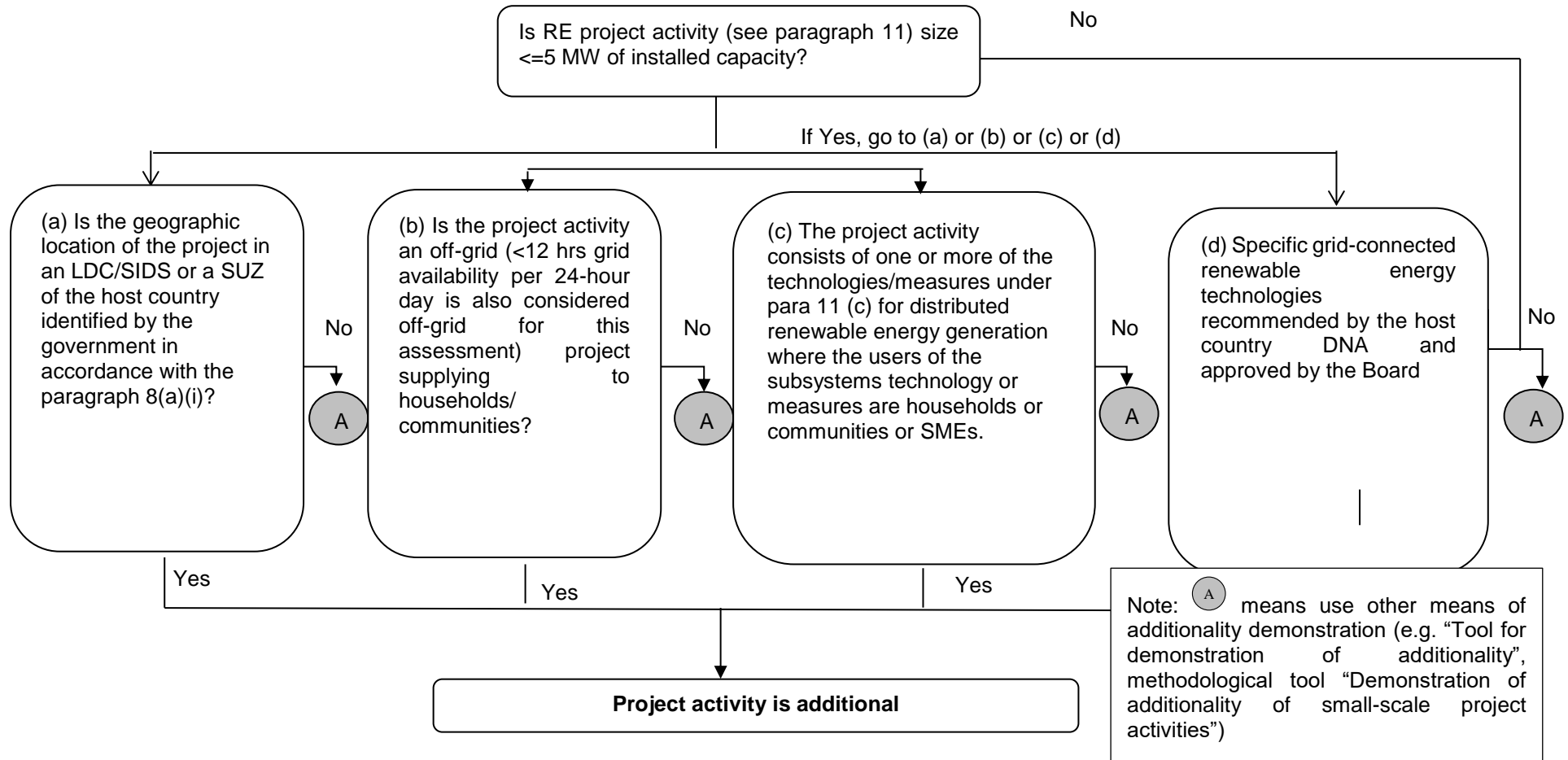


Figure 2. Microscale additionality test for Type-II project activities

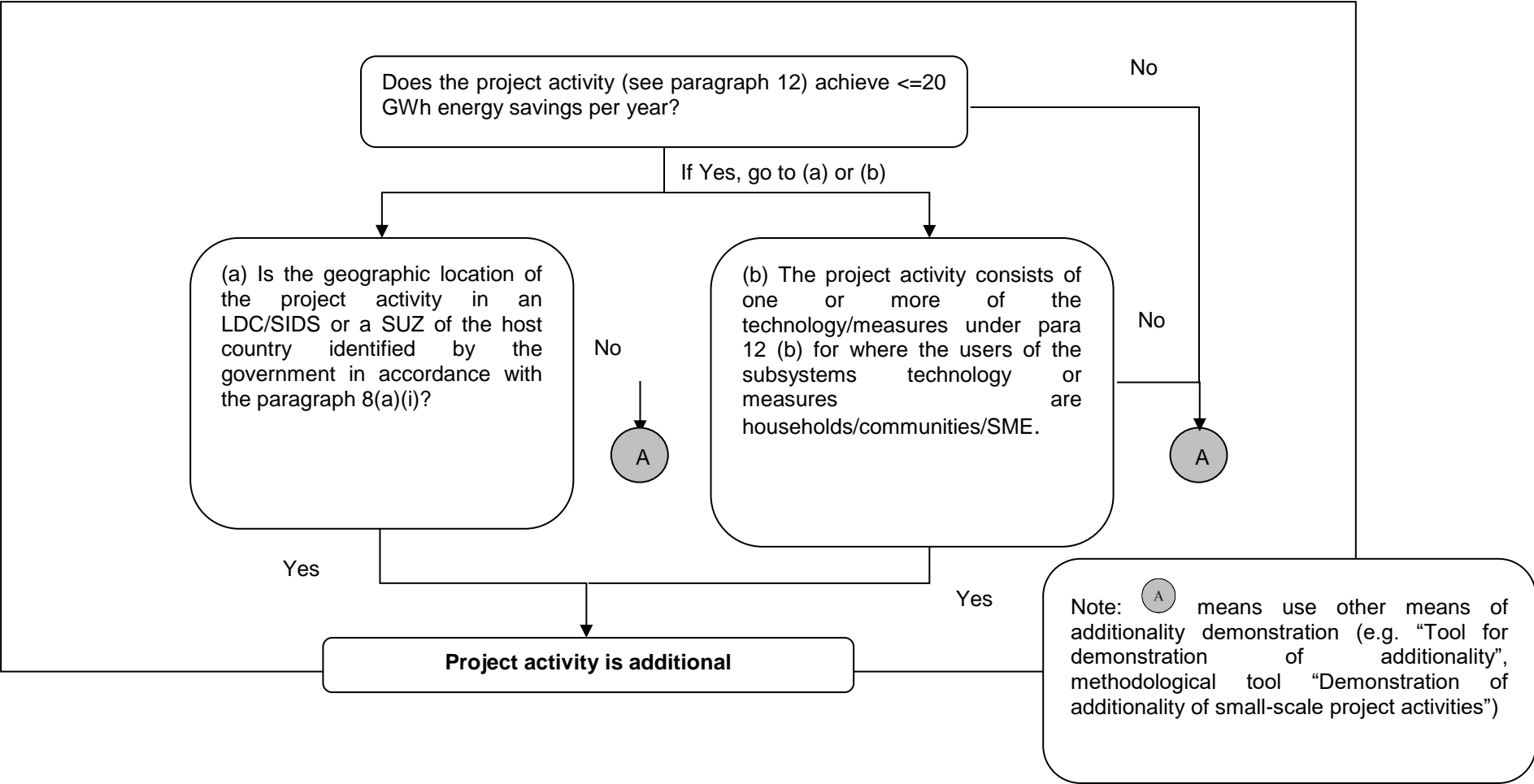
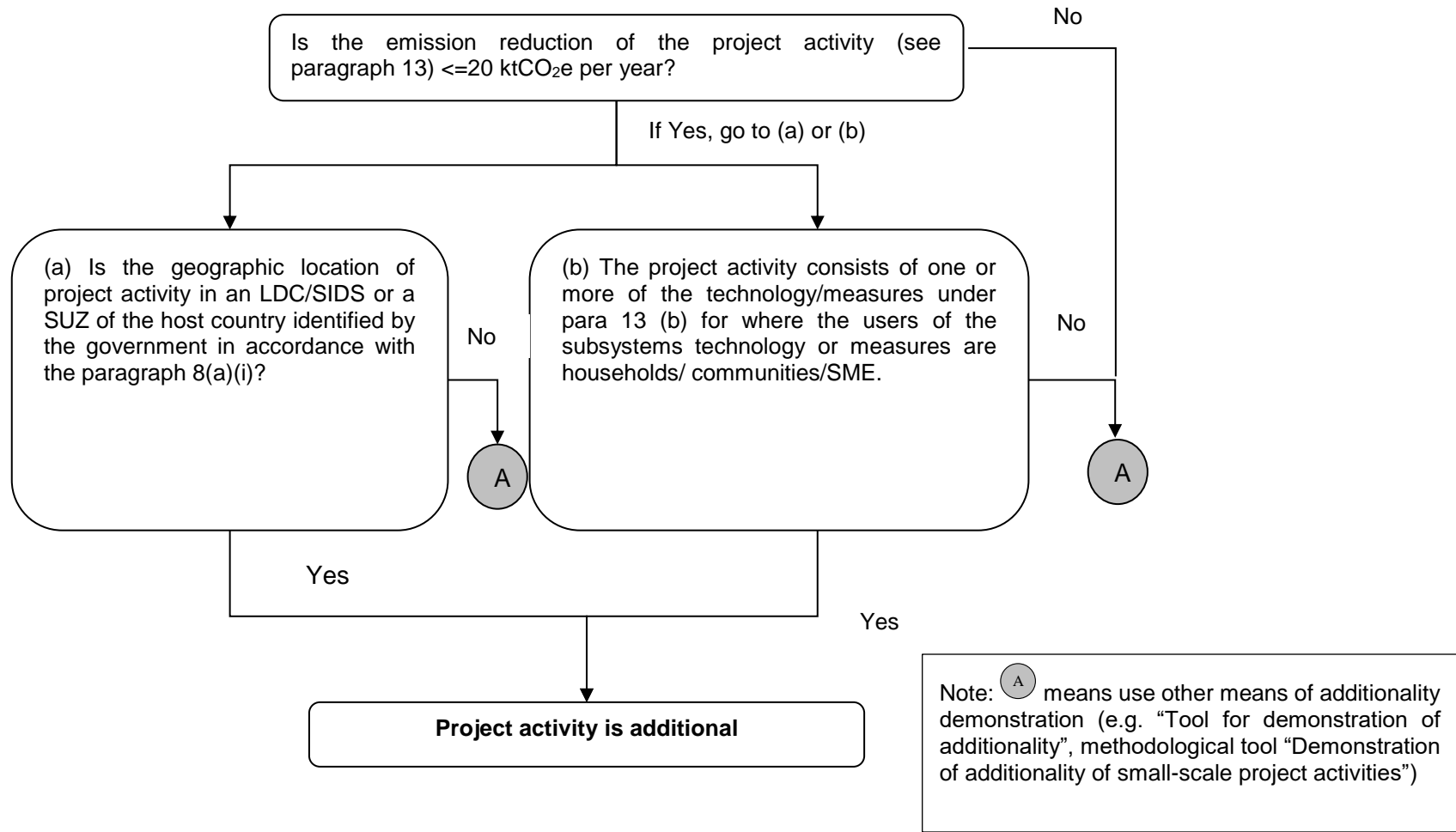


Figure 3. Microscale additionality test for Type III project activities



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### Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
10.0	8 September 2022	EB 115, Annex 21 Revision to ensure the consistency in definitions of market penetration metrics and thresholds.
09.0	29 November 2018	EB 101, Annex 15 Revision to remove unit size thresholds in the tool to make it consistent with "TOOL21: Demonstration of additionality of small-scale project activities".
08.0	22 September 2017	EB 96, Annex 10 Revision to broaden criteria for determining special underdeveloped zones (SUZ).
07.1	05 December 2016	Editorial revision to correct paragraph numbering, typo in Figure 3 and include reference documents in section 3.
07.0	16 October 2015	EB 86, Annex 14 Revision to enable applying micro-scale thresholds at the unit level.
06.0	16 April 2015	EB 83, Annex 12 Revision to reclassify this document from a guideline to a tool.
05.0	31 May 2013	EB 73, Annex 13 - The revision updates a reference to the procedure "Submission and consideration of microscale renewable technologies for automatic additionality".
04.0	20 July 2012	EB 68, Annex 26 Includes options to define the special underdeveloped zones in a host country; Clarifies the eligibility for project activities generating thermal energy such as solar water heaters displacing grid-connected electric heaters; Provides an example for the definition of "communities".
03	29 September 2011	EB 63, Annex 23 Header removed that was inadvertently added to version 02; Provision of additional guidance on paragraph 2(d), specifically on the definition of the applicable threshold.
02	15 April 2011	EB 60, Annex 25 Title of document has been changed; Inclusion of Type III projects, CPAs, project activities with more than one component.

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<i>Version</i>	<i>Date</i>	<i>Description</i>
01	28 May 2010	EB 54, Annex 15 Initial adoption.

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Decision Class: Regulatory

Document Type: Tool

Business Function: Methodology

Keywords: additionality, special underdeveloped zones, micro-scale project activities

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