

**CDM-MP76-A15**

## Draft Methodological tool

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# TOOL19: Demonstration of additionality of microscale project activities

Version 09.0

DRAFT



**United Nations**  
Framework Convention on  
Climate Change

## COVER NOTE

### 1. Procedural background

1. At its ninety-ninth meeting, the Executive Board of the clean development mechanism (CDM) (hereinafter referred to as the Board) requested the Methodologies Panel (MP) to assess the appropriateness of the thresholds in the "TOOL19: Demonstration of additionality of microscale project activities", to replace the current unit size criterion for the positive list as done for "TOOL21: Demonstration of additionality of small-scale project activities".

### 2. Purpose

2. Purpose of this document is to provide the assessment of the MP including draft revision to TOOL19.

### 3. Key issues and proposed solutions

3. TOOL21 version 11 had included criteria, where, "*Project activities solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size of each unit is no larger than 1 per cent of the small-scale CDM thresholds*" could indicate automatic additionality. The Board, taking into account the recommendation of the MP, removed the above percentage threshold criteria for additionality. The MP understood that the Board is expecting corresponding work in the TOOL19.
4. The positive list indicated in TOOL19 contains size thresholds (5MW, 20GWh/y, 20ktCO<sub>2</sub>e/y) that define microscale project activities that have been approved by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) in a first step.
5. TOOL19 in a second step applies the following criteria to determine eligibility of microscale project activities for automatic additionality;
  - (a) Is it implemented in an LDC/SIDS or a SUZ?
  - (b) Does it involve distributed units ( $\leq 1500\text{kW}$  or  $\leq 600\text{ MWh/y}$  or  $\leq 600\text{ tCO}_2\text{e/y}$  and end users are Households/communities/SMEs?
  - (c) Does it comprise of specific grid connected renewable energy technologies recommended by the host country and approved by the Board?
  - (d) Is it implemented in an off-grid area ( $\leq 12\text{ hrs/day}$  grid availability) supplying to households /communities?
6. Out of the above conditions, the MP noted that condition in para 5 (b) relies on information on the size of the unit based on percentage threshold of small-scale CDM thresholds and the users. Applying a similar rationale, as in the case of Tool21, that criteria that take into account cost and penetration of technology/measure as applied to a certain target group

or geographic region may be a superior indicator of barrier than the size of the units. In response to the EB mandate, the MP agreed to amend the condition 5 (b) mentioned above.

7. The MP thus agreed to recommend that the following thresholds relying on size indicated as percentage thresholds be removed from TOOL19;
  - (a) For project activities involving distributed energy generation units  $\leq$  1500kW (10% of Type I small-scale threshold);
  - (b) For project activities involving energy savings  $\leq$  600 MWh/y (1% of Type II small-scale threshold); and
  - (c) For other project activities having emission reductions  $\leq$  600 tCO<sub>2</sub>e/y (1% of Type III small-scale threshold).
8. The MP was of the opinion that the provision should be limited to households and communities where it can be reliably concluded that there are barriers prevalent for uptake of household-scale renewable energy (Type-I), energy efficiency (Type-II) and low-emissions technologies (Type-III).
9. The MP noted that individual methodologies include provisions to exclude technologies/measures that have high penetration rates in certain regions from using automatic additionality provisions through appropriate provisions (e.g. it would not be possible to apply microscale additionality provisions for CFLs in regions where there is high penetration of CFLs on account of implementation of policies for efficient lighting due to the provisions in AMS-II.J).
10. Further, it is worth noting that unlike the case of revision to TOOL21, in TOOL19 the MP did not outline a specific list of technologies that are automatically additional, as costs and penetration data on microscale technologies indicate that there are generally barriers to the implementation of these technologies to the adoption by households and communities.
11. The MP also noted few editorial corrections in paragraph 14 and 17 related to application of TOOL19 for microscale units in PoAs.

#### **4. Impacts**

12. The removal of thresholds from TOOL19 will ensure consistency between TOOL19 and TOOL21.

#### **5. Subsequent work and timelines**

13. The MP, at its 76<sup>th</sup> meeting, agreed on the draft revised methodological tool to seek public inputs. If inputs are received, the inputs will be taken into account when preparing the recommendation to the Board. If no inputs are received, the methodological tool is recommended by the MP for consideration by the Board at its hundredth meeting. No further work is envisaged.

## **6. Recommendations to the Board**

14. If no inputs are received during the call for public input, the MP recommends that the Board adopt this final draft methodological tool, to be made effective at the time of the Board's approval. If inputs are received, this section is not applicable.

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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 megawatts that employ renewable energy as their primary technology, **and** for energy efficiency project activities that aim to achieve energy savings at a scale of no more than 20 gigawatt hours per year **and for other project activities that reduce emissions by less than 20,000 tonnes of carbon dioxide equivalent per annum**. 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. Please refer to paragraphs 8-10.

### 2.3. Entry into force

4. The date of entry into force is the date of the publication of the EB **96XX** meeting report on **22 September 2017DD Month YYYY**.

## 3. Normative references

5. Project participants shall follow the applicable provisions for the demonstration of additionality in the CDM Project Standard. This tool also refers to the following documents:
  - (a) **"TOOL20: Assessment of debundling for SSC project activities"**;
  - (b) **"General Guidelines for SSC CDM methodologies"**;
  - (c) **"AMS-I.D.: Grid connected renewable electricity generation"**;
  - (d) **"AMS-III.P.: Recovery and utilization of waste gas in refinery facilities"**;

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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.

- (e) “AMS-III.Q.: Waste Energy Recovery (gas/heat/pressure) Projects”;
- (f) “AMS-III.V.: Decrease of coke consumption in blast furnace by installing dust/sludge recycling system in steel works”;
- (g) “AMS-III.W.: Methane capture and destruction in non-hydrocarbon mining activities”.

## 4. Definitions

- 6. The definitions contained in the Glossary of CDM terms shall apply.
- 7. The definition of SUZ provided in paragraph 8 and its footnote shall apply.

## 5. Methodology procedure<sup>3</sup>

- 8. Project activities up to five megawatts that employ renewable energy technology<sup>4</sup> are additional if any one of the conditions below is satisfied:<sup>5</sup>
  - (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 special underdeveloped zone (SUZ) of the host country;
    - (i) 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 most recent available data:
      - a. The proportion of population with income (PPP)<sup>6</sup> less than USD 2 per day in the region is greater than 50 per cent;
      - b. The GNI per capita in the country is less than USD 3000<sup>7</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>8</sup>

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<sup>3</sup> A positive list of technologies that are automatically defined as additional are included in the methodological tool “Demonstration of additionality of small-scale project activities” for which it is not required to satisfy the conditions indicated here.

<sup>4</sup> All technologies/measures included in approved Type I small-scale CDM methodologies are eligible to be considered. Furthermore, at its fifty-seventh meeting the Board clarified that all CDM project activities that meet the criteria specified in this methodological tool are eligible to apply the methodological tool irrespective of the scale of the approved CDM methodology applied to the project activity.

<sup>5</sup> Otherwise other means for demonstrating additionality shall be used (e.g. the tool “Tool for demonstration of additionality”, or the methodological tool “Demonstration of additionality of small-scale project activities”).

<sup>6</sup> Purchasing power parity.

<sup>7</sup> PPP or the World Bank atlas method or another comparable method.

<sup>8</sup> Information on per capita income or other economic indicators used for the ranking purposes shall be provided in USD.

- c. 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>9</sup> is greater than 50 per cent;
- (ii) In cases where, based on the recommendation of the designated national authority of the host country,<sup>10</sup> the SUZ in the host country has been approved by Executive Board (hereinafter referred to as the Board) of the clean development mechanism (CDM), the list of such SUZ shall be maintained on the UNFCCC website (e.g. at <<http://cdm.unfccc.int/DNA/submissions/index.html>>). In the case of these SUZ listed on the CDM website there is no need for the project proponents to provide proofs as indicated in paragraph 8(a) above;<sup>11</sup>
- (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 is designed for distributed energy generation (not connected to a national or regional grid)<sup>12</sup> ~~with both conditions (i) and (ii) satisfied;~~
- ~~(i) Each of the independent subsystems/measures in the project activity is smaller than or equal to 1500 kW electrical installed capacity;~~
- ~~(ii) where End the users of the subsystems technology or measures are households and / or communities/small and medium enterprises (SMEs);<sup>13</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>14</sup> of installed capacity equal to or smaller than 5 MW;

<sup>9</sup> <<http://www.un.org/sustainabledevelopment/sustainable-development-goals/>>.

<sup>10</sup> DNA recommendations will be based on conditions indicated in paragraph 8(a)(i).

<sup>11</sup> The process for the Board to consider and approve the SUZs proposed by DNAs is established in the procedure for "Submission and consideration of microscale renewable energy technologies for automatic additionality".

<sup>12</sup> This means that projects applying "AMS-I.D: Grid connected renewable electricity generation" are not eligible. However, project activities generating thermal energy such as solar water heaters displacing grid-connected electric heaters can apply paragraph 8(c).

<sup>13</sup> "Communities" of consumers may for example include households, commercial facilities such as shops and, public services/buildings ~~and small, medium and micro enterprises (SMMEs)~~; Applications may include lighting (interior, public street lighting), electrical appliances such as refrigerators, agricultural water pumps.

<sup>14</sup> Renewable technologies that do not generate electricity, such as heating and cooling technologies, are not eligible.



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- (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>15</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).
9. Energy efficiency project activities<sup>16</sup> that aim to achieve energy savings at a scale of no more than 20 gigawatt hours 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 identified by the government in accordance with the paragraph 8(a)(i) above;
  - (b) The project activity is an energy efficiency activity ~~with both conditions (i) and (ii) below satisfied:~~
    - ~~(i) Each of the independent subsystems/measures in the project activity achieves an estimated annual energy savings equal to or smaller than 600 megawatt hours;~~
    - ~~(ii) where End the users of the subsystems technology or measures are households and / or communities/SMEs.~~

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<sup>15</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.

<sup>16</sup> All technologies/measures included in approved Type II small-scale CDM methodologies are eligible to be considered. Further, the Board at its fifty-seventh meeting clarified that all CDM project activities that meet the criteria specified in this methodological tool are eligible to apply the methodological tool irrespective of the scale of the approved CDM methodology applied to the project.

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10. Other project activities not included in paragraphs 8 or 9 above, that is Type III project activities<sup>17</sup> 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 as identified by the government in accordance with the paragraph 8(a)(i) above;
  - (b) The project activity is an emission reduction activity ~~with both conditions (i) and (ii) below satisfied:~~
    - ~~(i) Each of the independent subsystems/measures in the project activity achieves an estimated annual emission reduction equal to or less than 600 tCO<sub>2</sub>e per year; and~~
    - ~~(ii) where End the users of the subsystems technology or measures are households and / or communities/SMEs.~~
11. Project activities that meet the requirements specified in paragraph 8 or paragraph 9 or paragraph 10 above are termed “Microscale CDM project activities”.
12. “Project activity” in paragraphs 8–10 means 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).
13. In the case of bundled projects, “Project activity” in paragraphs 8–10 refers to individual projects within the bundle and this methodological tool are applied in conjunction with the ~~methodological tool~~ “TOOL20: Assessment of debundling for SSC project activities” excluding paragraph 7<sup>18</sup> of the latter methodological tool.
14. The eligibility of project activities as microscale CDM project activities will be determined in accordance with the ~~requirements provided under principles~~ section 7.12.2 “Project activity type and eligibility” of the “CDM project standard for project activities” ~~laid out in paragraph 3 and paragraph 4 of the “General Guidelines for SSC CDM methodologies” (version 16 or its update)~~, that is:
- (a) Project activities remain under the thresholds defined above during each year of the crediting period and in cases where ~~ex-ante projected emissions reductions show an increase during the crediting period;~~ project activities that ~~go beyond exceed~~ the microscale limits in any year of the crediting period are not eligible;

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<sup>17</sup> All technologies/measures included in approved Type III small-scale CDM methodologies are currently eligible to be considered, except for “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”. In the latter cases further analysis is required.

<sup>18</sup> This means that the following paragraph of the debundling methodological tool 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”.

- (b) Renewable energy projects that produce electrical, thermal and mechanical energy, and cogeneration projects are covered. Definitions provided for output capacity and guidelines provided for conversion from electrical to thermal units<sup>19</sup> in the most recent version of “General Guidelines for SSC CDM methodologies” shall be used. Where applicable, additional guidelines provided in relevant methodologies shall be followed for example eligibility of cogeneration projects as currently defined in “AMS-I.C: Thermal energy production with or without electricity”;
- (c) A project activity with more than one component, where each component meets the microscale threshold, is eligible. The sum of the size of components of a project activity belonging to the same type (capacity for Type I, energy savings for Type II and emission reductions for Type III) shall not exceed the limits for microscale project activities (e.g. the limit for the methane recovery component is 20 ktCO<sub>2</sub>e/yr and the limit for the electricity production component is 5 MW output capacity).
15. Microscale CDM project activities shall follow the applicable provisions for demonstration of prior consideration of the CDM in the CDM Project Standard.
16. 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 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).

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

17. For CPAs applying microscale thresholds at the unit level rather than at the aggregate level of the CPA, the term ‘project activities’ in paragraphs 8–12 and 14 above shall be read as ‘units’<sup>20</sup>. The eligibility of CPAs applying microscale thresholds at the unit level will be determined in accordance with the requirements provided under in the section 7.12.7 “Specific design requirements for small-scale component project activities” of the “CDM project standard for programme of activities”, that is;
- (a) Each unit remains under the microscale thresholds during each year of the crediting period and unit(s) that exceed the microscale threshold in any year of the crediting period are not eligible;
- (b) A CPA with more than one unit, where each unit meets the microscale threshold, is eligible.

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 level of the CPA. In such cases, the requirements related to debundling stated in paragraphs 13 and 16 above do not apply either.

<sup>19</sup> That is multiply by three to derive thermal units from electrical units irrespective of the type of project or methodology applied.

<sup>20</sup> Units are also referred to as “independent subsystems” or “technology/measures” in CDM regulatory documents.

**Figure 1. Microscale additionality test for RE project activities**

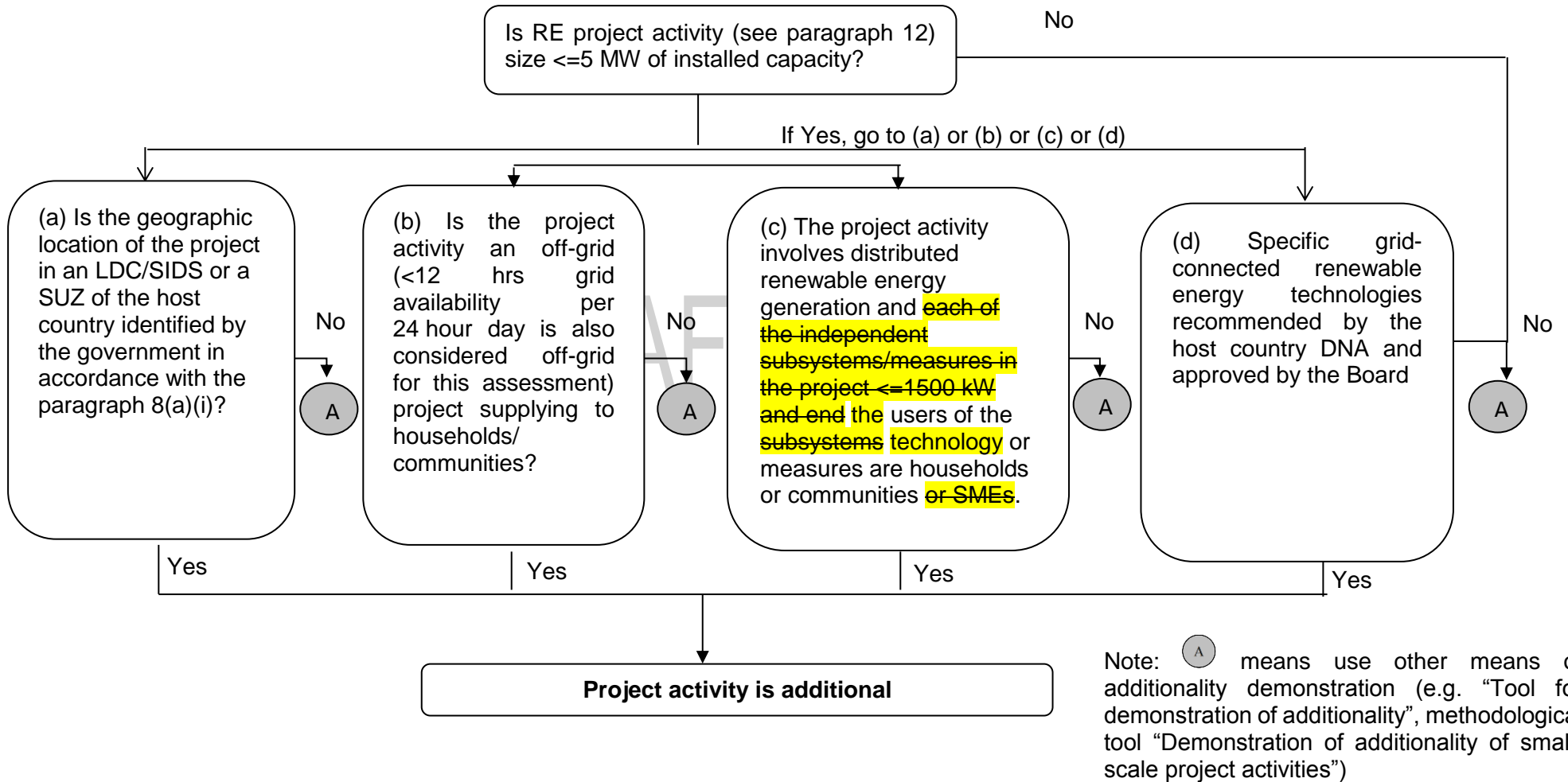
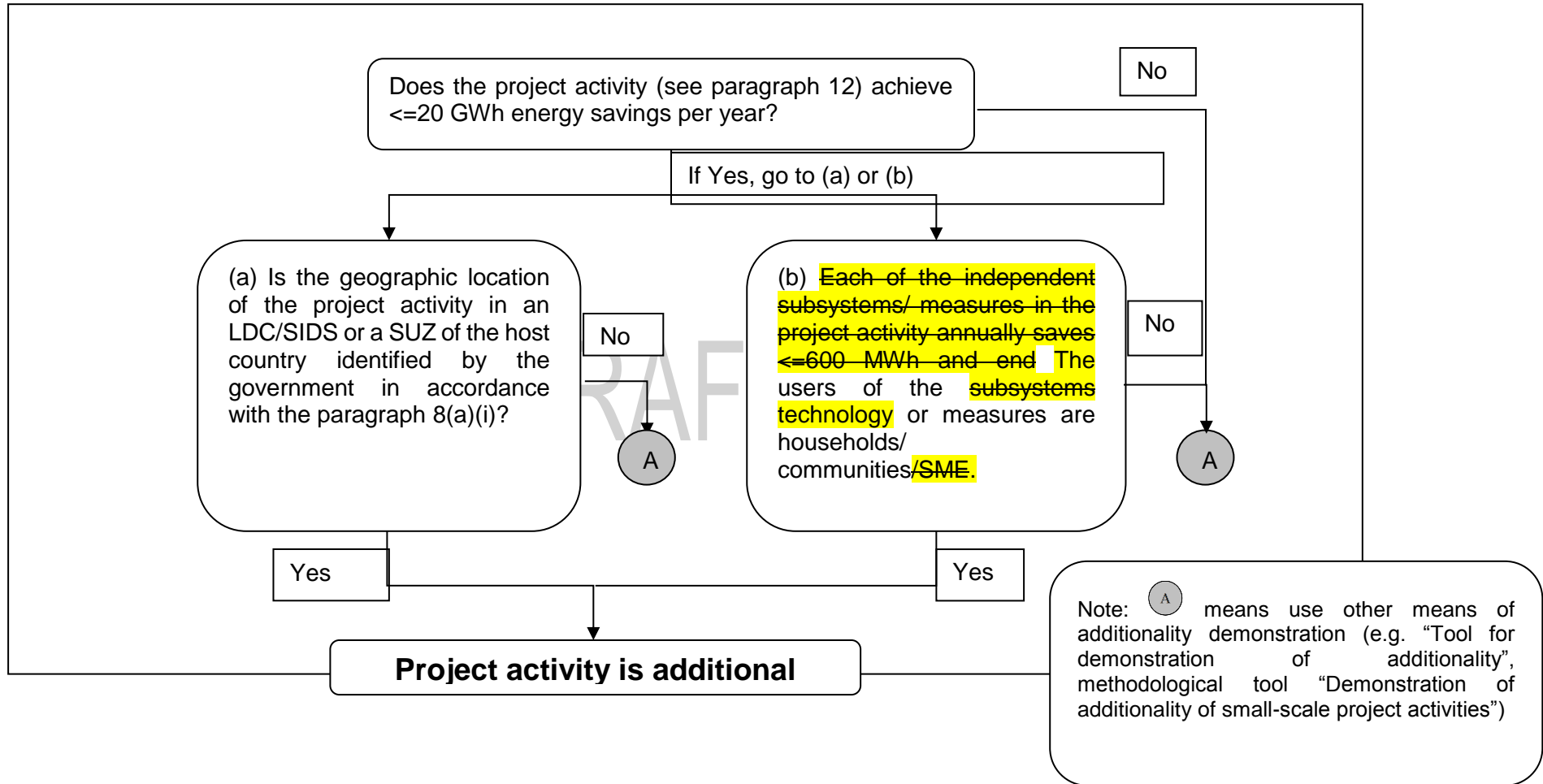
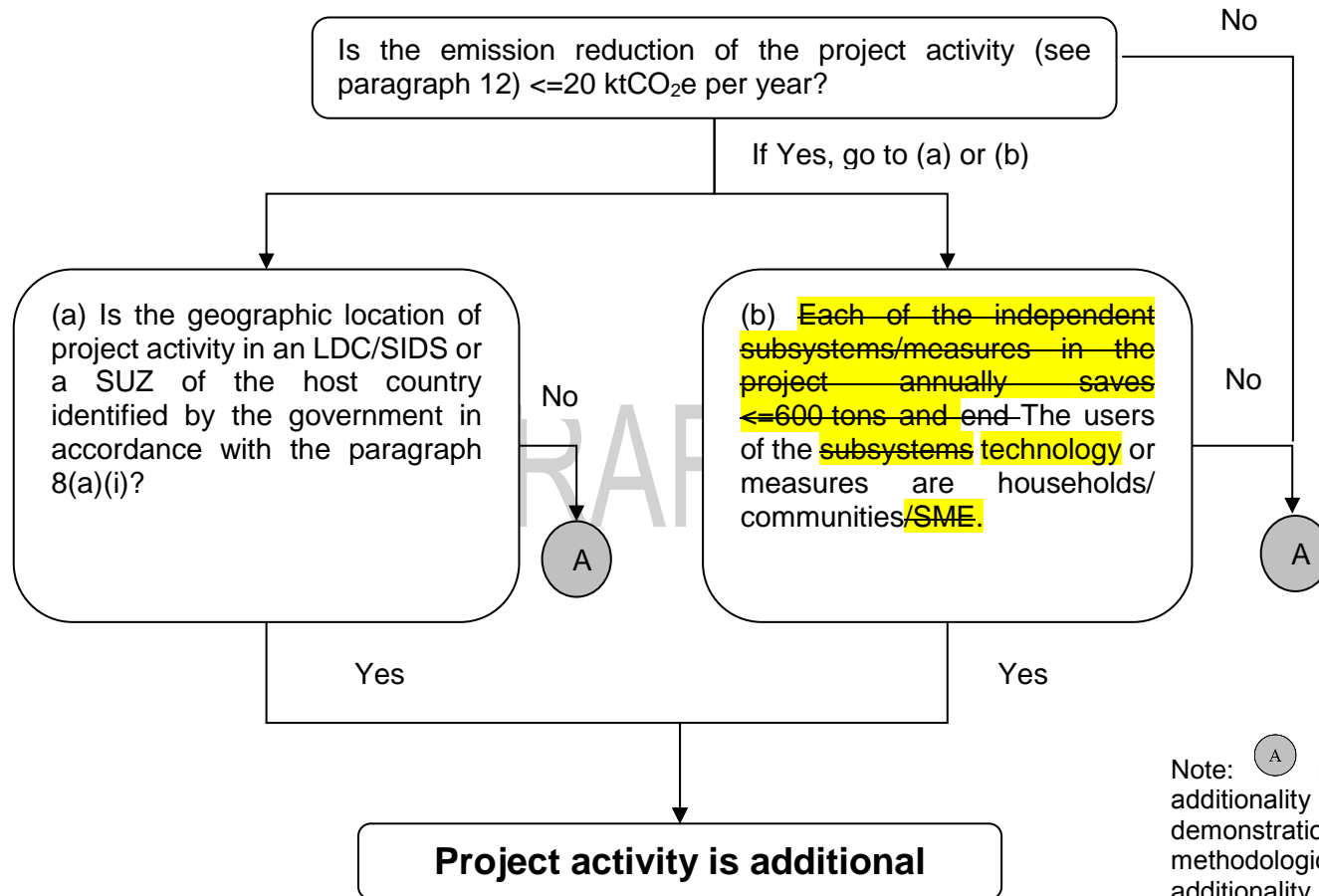


Figure 2. Microscale additionality test for EE project activities



**Figure 3. Microscale additionality test for project activities  $\leq 20$  ktCO<sub>2</sub>e/y**



Note: (A) means use other means of additionality demonstration (e.g. “Tool for demonstration of additionality”, methodological tool “Demonstration of additionality of small-scale project activities”)

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## Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
09.0	20 June 2018	<p>MP 76, Annex 15</p> <p>A call for public input will be issued for this draft document.</p> <p>If no public inputs are received, this draft document will be considered by the Board at EB 100.</p> <p>Revision to remove unit size thresholds in the tool to make it consistent with application of "TOOL21: Demonstration of additionality of small-scale project activities".</p>
08.0	22 September 2017	<p>EB 96, Annex 10</p> <p>Revision to broaden criteria for determining special underdeveloped zones (SUZ).</p>
07.1	05 December 2016	<p>Editorial revision to correct paragraph numbering, typo in Figure 3 and include reference documents in section 3.</p>
07.0	16 October 2015	<p>EB 86, Annex 14</p> <p>Revision to enable applying micro-scale thresholds at the unit level.</p>
06.0	16 April 2015	<p>EB 83, Annex 12</p> <p>Revision to reclassify this document from a guideline to a tool.</p>
05.0	31 May 2013	<p>EB 73, Annex 13</p> <p>- The revision updates a reference to the procedure "Submission and consideration of microscale renewable technologies for automatic additionality".</p>
04.0	20 July 2012	<p>EB 68, Annex 26</p> <p>Includes options to define the special underdeveloped zones in a host country;</p> <p>Clarifies the eligibility for project activities generating thermal energy such as solar water heaters displacing grid-connected electric heaters;</p> <p>Provides an example for the definition of "communities".</p>
03	29 September 2011	<p>EB 63, Annex 23</p> <p>Header removed that was inadvertently added to version 02;</p> <p>Provision of additional guidance on paragraph 2(d), specifically on the definition of the applicable threshold.</p>
02	15 April 2011	<p>EB 60, Annex 25</p> <p>Title of document has been changed;</p> <p>Inclusion of Type III projects, CPAs, project activities with more than one component.</p>
01	28 May 2010	<p>EB 54, Annex 15</p> <p>Initial adoption.</p>

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