

CDM-MP84-A06

Draft Methodological tool

TOOL32: Positive lists of technologies

Version 03.0

DRAFT



United Nations
Framework Convention on
Climate Change

COVER NOTE

1. Procedural background

1. The Executive Board of the clean development mechanism (CDM) (hereinafter referred to as the Board) at its 104th meeting adopted the “TOOL32: Positive lists of technologies” (hereinafter referred as tool) that covers technologies that confer the automatic additionality to CDM project activities and CDM programmes of activities (PoAs) that apply them.
2. The positive lists as contained in section 5 of the tool are valid up to 28 November 2021. In accordance with the provisions in Appendix of the tool, the validity of the positive list included in the tool shall be re-assessed by the Methodologies Panel (MP) every three years. To do this, the MP should initiate the analysis of the positive list of technologies at least 365 days prior to the expiry date of the positive list in order to prepare a recommendation on the continuation or graduation of technologies contained in the positive list for consideration by the Board.

2. Purpose

3. The purpose of this information note is to highlight the progress made in assessing the positive list, issues related to validity of the tool, timeline available for the MP and the availability of the recent data to complete the work.

3. Key issues and proposed solutions

3.1. Current focus of the work

4. The tool contains the positive list for waste handling and disposal, renewable energy and for technology/measure used by household, communities and SMEs. The MP considered that updating the positive list for ‘waste handling and disposal sector’ and for ‘technology/measure used by household, communities and SMEs’ that are based on project specific scenarios is straightforward, as preliminary analysis did not show significant changes in cost and penetration.
5. Also, to apply the positive lists in the above sectors, a project participant or a coordinating and managing entity needs to submit evidence¹ to the validating DOE confirming that the particular situation exists and/or information on market penetration and aggregate installed capacities of the technologies. Hence, the MP focused its work on update of the positive list for renewable energy sector.

¹ Such documents and evidence should include a confirmation from DOE, based on the review of national regulations for waste handling and disposal, or end-use technology(ies) such as biogas digestors used for cooking purpose, or review of national standards for energy efficient pump-sets.

3.2. Key issues

6. With a view to update the positive list for renewable energy sector, the MP started analyzing (i) the penetration rate of specific renewable energy technologies based on installed capacity and annual generation against the total installed capacity or total annual generation in the respective country grid, and (ii) levelised cost of electricity generation of renewable energy technologies with respect to comparable fossil fuel technologies. The MP reviewed the methodology and data sources that were used during the previous update of the tool and agreed that updated data from the same sources are sufficient to undertake the current work.
7. Further, the MP noted that the current version of the tool is valid till November 2021. To avoid any gap in validity of the tool² an updated version of the tool needs to be submitted to the Board for its consideration at EB112 in October 2021. The MP came to the opinion that this schedule leaves an insufficient time period for the MP to finish its work. As the current version of the tool is valid up to 28th November 2021 only, it could leave a gap in the validity of the tool that may compound difficulties of the project participants and coordinating and managing entities (PPs), requiring them to undertake more work to demonstrate additionality using conventional approaches.
8. Meanwhile, MP has kick started the work reviewing the data sources that were used previously such as, IRENA Query Tool, REN21 data on cost of Renewables, IEA World Energy Outlook (free version), BP Statistical review, Bloomberg new energy finance and World Bank data on country specific lending rates. It noted that these data sources were last updated with the data for year 2018 or 2019. Refer following table 1 providing summary of data coverage for various data sources.
9. Furthermore, MP observed that previous update of the tool in 2018 was based on the data vintages that comprised 2017 data. If MP were to conclude its work by September 2021, it may have to rely on older data i.e. data of 2018 or 2019 to determine the positive list that will remain valid for the next 3-years³. However, referring to table 1 below, it is expected that updated data from the same sources would be available during second-half of 2021.

² Noting the approved tentative schedule of the Meth Panel meeting in 2021, the Meth Panel needs to publish the draft version of the tool at MP85 in June 2021 to seek public comments and then finalise the draft version of the tool by MP86 in September for the consideration of EB112 in October 2021.

³ In 2024 if the additionality of the project activity is demonstrated using positive list it will be based on data for 2018 which is actually 6-years old data.

Table 1. Data coverage of data sources

Data source	Purpose of the data source	Data coverage up to^(a)	Latest publication year	Potential date when next publication will be available as a free download^(b)
IRENA Query Tool	Penetration rate	2018	July, 2020	July, 2021
REN21 data on cost of renewables	LCOE determination	2019	June, 2020	June, 2021
IEA World Energy Outlook ^(c) (free version)	Penetration rate	2017	Nov, 2018	Nov, 2021 (to access a free version)
BP Statistical review	Penetration rate	2019	June, 2020	June, 2021
World Bank data on lending rates	LCOE determination	2019	Dec, 2020	Dec, 2021
IEA, Electricity information	Penetration rate	2018	July, 2020	July, 2021
IEA, projected cost of electricity generation	LCOE determination	2019	2020	2021
IEA World Energy Investments	Share of renewables in recent investments	2019	July, 2020	July, 2021
Lazard estimates	LCOE determination	2019	Oct, 2020	Oct / Nov 2021

(a) For the purpose of this note, year is considered as a calendar year.

(b) Tentative date based on yearly publication cycle of the data source.

(c) Publicly available version accessible without any subscription.

3.3. Proposed solutions

10. The MP considered 3 options to complete the work:
 - (a) Option A – To complete the work based on 2018 or 2019 data;
 - (b) Option B – To complete the work based on the updated data for year 2020 with a gap period in the validity of the tool;
 - (c) Option C – On an interim basis extend the validity of the tool by 1-year i.e. up to November 2022, and the MP to complete the work based on the updated data for year 2020.
11. Considering that it allows to use the most recent data to provide the analysis, it is least disruptive for the work of the PPs, Option C was chosen as the preferred option by MP.
12. Therefore, the MP requests the Board to extend the validity of the tool for an interim period of 1-year i.e. up to 28 November 2022, as proposed under option C above. Meanwhile,

the MP will continue analysing the data and present its analysis to the Board for its consideration at its second meeting in 2022.

4. Impacts

13. The proposal will ensure that:

- (a) There is no gap in the validity of the tool and, therefore, PPs will be able to apply the tool seamlessly to their potential project activities;
- (b) The data used for analysis of positive list technologies will be the most recent available data.

5. Subsequent work and timelines

14. The interim draft version of the tool is attached herewith wherein the validity of the tool is extended up to 28 November 2022.

15. Further the MP will continue analysing the data and present its analysis to the Board for its consideration at its second meeting in 2022.

6. Recommendations to the Board

16. The MP recommends that the Board approve the draft version of the tool, to be made effective at the time of the Board's approval.

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1. Introduction

1. This methodological tool covers technologies that confer automatic additionality to CDM project activities and CDM programmes of activities (PoAs) that apply them.

2. Scope, applicability, and entry into force

2.1. Scope

2. This methodological tool contains lists of technologies and associated conditions that confer automatic additionality to CDM project activities and CDM PoAs that apply such technologies and meet specified conditions (hereinafter referred to as positive lists).
3. The methodological tool specifies the validity, process for update and timelines for the update of the positive list (see appendix of this document).

2.2. Applicability

4. The use of this methodological tool is not mandatory for the project participants of a CDM project activity or CDM PoA for demonstrating their additionality.
5. This methodological tool shall be applied in conjunction with a small-scale or large-scale methodology which refers to this tool.
6. The positive lists as contained in section 5 of this tool are valid up to 28 November 2024 2022. Notwithstanding the provisions on the validity of new, revised and previous versions of methodologies and methodological tools in the “Procedure: Development, revision and clarification of baseline and monitoring methodologies and methodological tools”, there will be no grace period for the application of this tool and the validity of the positive list after this date, including in cases where further technologies are added to the positive list through revisions of this tool before this date.

2.3. Entry into force

7. The date of entry into force is the date of the publication of the EB XX meeting report on DD Month Year.

3. Normative references

8. The project participants of a CDM project activity or CDM PoA shall follow the applicable provisions for the demonstration of their additionality as provided for in the following documents:
 - (a) “CDM project standard for project activities”;
 - (b) “CDM project standard for programme of activities”.

4. Definitions

9. The definitions contained in the “Glossary: CDM terms” shall apply.

5. Positive list of technologies

10. When applying baseline and monitoring methodologies that refer to this tool, project activities and PoAs are deemed automatically additional if they exclusively apply the technologies listed under this section and demonstrate that they fulfil the related conditions specified in the same section.

5.1. Waste handling and disposal

5.1.1. Landfill gas recovery and its gainful use

11. The project activities and PoAs at new or existing landfills (greenfield or brownfield) are deemed automatically additional, if it is demonstrated that prior to the implementation of the project activities and PoAs the landfill gas (LFG) was only vented and/or flared (in the case of brownfield projects) or would have been only vented and/or flared (in the case of greenfield projects) but not utilized for energy generation, and that under the project activities and PoAs any of the following conditions are met:
- (a) The LFG is used to generate electricity in one or several power plants with a total nameplate capacity that equals or is below 10 MW;
 - (b) The LFG is used to generate heat for internal or external consumption;
 - (c) The LFG is flared.

5.1.2. Methane recovery in wastewater treatment

12. The project activities and PoAs in an existing facility are deemed automatically additional if it is demonstrated that all of the following conditions are met:
- (a) The existing treatment system is an anaerobic lagoon and the wastewater discharged meets the host country regulation;
 - (b) There is no regulation in the host country that requires the management of biogas from domestic, industrial and agricultural sites;
 - (c) There is no capacity increase in the wastewater treatment system;
 - (d) No other alternative economic activity is expected to be undertaken on the land of the existing lagoon;
 - (e) The biogas is used to generate electricity in one or more power plants, and the total nameplate capacity is below 5 MW.

5.2. Renewable energy¹

5.2.1. Renewable energy technologies for large-scale grid-connected power generation

13. The following grid-connected electricity generation technologies are considered for the positive list:
- (a) Solar photovoltaic technologies;
 - (b) Solar thermal electricity generation including concentrating Solar Power (CSP);
 - (c) Off-shore wind technologies;
 - (d) Marine wave technologies;
 - (e) Marine tidal technologies;
 - (f) Ocean thermal technologies.
14. A specific technology listed in paragraph 13 above is defined as automatically additional if at the time of PDD submission² any of the following conditions is met:
- (a) The percentage share of total installed capacity of the specific technology in the total installed grid connected power generation capacity in the host country is equal to or less than two per cent; or
 - (b) The total installed capacity of the technology in the host country is less than or equal to 50 MW.

5.2.2. Renewable energy technologies for large-scale isolated grid power generation

15. The following electricity generation technologies in an isolated grid are considered for the positive list:
- (a) Solar photovoltaic technologies;
 - (b) Solar thermal electricity generation including concentrating solar Power (CSP);
 - (c) Off-shore wind technologies;
 - (d) Marine wave technologies;
 - (e) Marine tidal technologies;
 - (f) Ocean thermal technologies.

¹ The project proponents that apply simplified procedure to demonstrate additionality shall provide information on actual capital cost of the project activity or the CPA at the time of the first verification. This information will be used for further work on positive list and will not affect the registered projects or PoAs.

² For registration of the project activity or inclusion of the component project activity (CPA) in a programme of activities.

16. A specific technology listed in paragraph 15 above is defined as automatically additional if at the time of PDD submission³ any of the following conditions is met:
- (a) The percentage share of total installed isolated grid power generation capacity of the specific technology in the total installed isolated grid power generation capacity in the host country is equal to or less than two per cent; or
 - (b) The total installed isolated grid power generation capacity of the specific technology in the host country is less than or equal to 50 MW.

5.2.3. Renewable energy technologies for small-scale grid-connected power generation

17. The following grid-connected renewable electricity generation technologies are included in the positive list:
- (a) Solar photovoltaic technologies;
 - (b) Solar thermal electricity generation including concentrating solar Power (CSP);
 - (c) Off-shore wind technologies;
 - (d) Marine wave technologies;
 - (e) Marine tidal technologies;
 - (f) Building-integrated wind turbines or household rooftop wind turbines of a size up to 100 kW;
 - (g) Biomass internal gasification combined cycle (BIGCC).

5.2.4. Renewable energy technologies for small-scale off-grid power generation

18. The following off-grid electricity generation technologies are included in the positive list where the individual units do not exceed the thresholds indicated in parentheses with the aggregate project installed capacity not exceeding the 15 MW threshold:
- (a) Micro/pico-hydro (with power plant size up to 100 kW);
 - (b) Micro/pico-wind turbine (up to 100 kW);
 - (c) PV-wind hybrid (up to 100 kW);
 - (d) Geothermal (up to 200 kW);
 - (e) Biomass gasification/biogas (up to 100 kW);

³ For registration of the project activity or inclusion of the component project activity (CPA) in a programme of activities.

5.2.5. Rural electrification projects

19. Rural electrification⁴ project activities using renewable energy sources in countries with rural electrification rates less than 50 per cent; the most recent available data on the electrification rates shall be used to demonstrate compliance with the 50 per cent threshold. In no case, data older than three years from the date of commencement of validation of the project activity shall be used.
20. Rural electrification project activities by grid extension are automatically additional when all the following criteria are met:
 - (a) Rural electrification rate in the country is below 50 per cent;
 - (b) Geography: Least developed countries (LDCs), Small Island Developing States (SIDS), Special Under Developed Zone (SUZ)⁵;
 - (c) Recent trends: rural electrification rate has increased by less than 20 per cent over the past 10 years;
 - (d) The extension of a grid for rural electrification of a community involves at least a distance of 3 km from the point of grid extension to the rural community at which the CDM project is implemented.

5.3. Positive list for technology/measure used by household, communities and SMEs

21. The following technologies where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs):
 - (a) **Biogas digesters for cooking:** Digesters used in biogas generation from anaerobic treatment wastes (e.g., kitchen, vegetable, animal and farm) where the resulting biogas is used for heat production for cooking purpose as eligible under the approved CDM methodologies for example AMS-I.C., AMS-I.E. or AMS-I.I.;
 - (b) **Micro-irrigation:** Application of optimum quantify of water at low hourly flow rates directly to the root zone of plants (such as drip irrigation, micro-sprinklers), which results in avoidance of water losses attributed to the traditional flooded irrigation systems as eligible under the approved CDM methodology for example AMS-II.F.;
 - (c) **Energy efficient pump-set for agriculture:** Energy efficient pump and motor assembly together with starter and other electrical accessories/devices to deliver water for irrigation, as eligible under the approved CDM methodology for example AMS-II.P. Only pump-sets belonging to the highest efficiency class in the national standards and labelling (S & L) programme (e.g. five-star energy efficiency rating) are eligible. Where such S&L programme are not in place, it shall be demonstrated

⁴ Rural electrification for the purpose of this document is defined as a project activity for supplying renewable electricity to facilities and energy consumers that do not have access to any electricity distribution system/network such as a national grid or regional grid. Such electricity end-use facilities may include but are not limited to households, public buildings, and/or small, medium and micro enterprises. Electricity uses may include but are not limited to interior lighting, street lighting, refrigeration, or agricultural water pumps. Rural electrification rate is the percentage of rural population having access to electricity.

⁵ SUZ as defined under the micro-scale additionality tool.

that the efficiency of project pump-sets is at least 10 percent (in relative terms) higher than the average efficiency of the pump sets in the market to be eligible.

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Appendix. Process, criteria and timeline for the update of the positive lists

1. The validity of the positive list included in this tool shall be re-assessed by the Methodologies Panel (MP) every three years.
2. The MP shall initiate the analysis of the positive list of technologies at least 365 days prior to the expiry date of the positive list as referred to in paragraph 6 of this tool.
3. The MP shall review relevant information on costs, penetration rates and other related information (e.g. regulations) pertaining to the technologies and conditions contained in the positive list and comparable alternatives that are applicable to non-Annex I Party countries taking into account size thresholds and prepare a recommendation on the continuation or graduation of technologies contained in the positive list for consideration by the Board.
4. The Board shall decide on the continuation or graduation of the technologies contained in the positive list.
5. The Board may include additional technologies to the positive list in this tool at any point in time. In such cases, the validity of the technologies added is limited to the remaining valid period of the positive list as indicated in paragraph 6 of this tool and those technologies are subject to review as indicated in paragraphs 1–3 above.
6. Stakeholders may propose addition of technologies to the positive list in this tool following the process in section 6 ‘Revision of approved methodology or methodological tool’ of the “Procedure: Development, revision and clarification of baseline and monitoring methodologies and methodological tools”.

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Document information

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03.0	12 April 2021	MP 84, Annex 6 To be considered by the Board at EB 110. Revision to extend the validity of the positive list included in the tool for one year on an interim basis to avoid the gap in its validity.
02.0	28 November 2019	EB 105, Annex 5 Revision to include positive lists from “AM0103: Renewable energy power generation in isolated grids”, “ACM0002: Grid-connected electricity generation from renewable sources” and “TOOL21: Demonstration of additionality of small-scale project activities”.

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