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# Standard

# CDM validation and verification standard for project activities

Version 02.0



**United Nations** Framework Convention on Climate Change

#### TABLE OF CONTENTS

#### Page

1.	INTRO	ODUCTION	5
	1.1.	Background	5
	1.2.	Objectives	5
2.	SCOPE, APPLICABILITY AND ENTRY INTO FORCE		
	2.1.	General	6
	2.2.	Application	6
	2.3.	Entry into force	6
3.	NOR	MATIVE REFERENCES	6
4.	TERM	IS AND DEFINITIONS	6
5.	PRINCIPLES		
	5.1.	General	7
	5.2.	Independence	7
	5.3.	Ethical conduct	7
	5.4.	Fair presentation	7
	5.5.	Due professional care	7
6.	GENERAL VALIDATION AND VERIFICATION REQUIREMENTS		
	6.1.	General validation and verification approach	7
	6.2.	Use of and compliance with applicable standards	8
	6.3.	Use of applicable forms	9
	6.4.	Use of applicable global warming potentials	9
7.	VALIDATION FOR REGISTRATION OF PROJECT ACTIVITIES		
	7.1.	General validation requirements	9
	7.2.	Demonstration of prior consideration of the clean development mechanism	11
	7.3.	Identification of project type	13
	7.4.	Description of project activity	13
	7.5.	Selection of methodologies and standardized baselines	15
	7.6.	Application of methodologies and standardized baselines	16

	7.7.	Start date, crediting period type and duration	28
	7.8.	Environmental impacts	28
	7.9.	Local stakeholder consultation	28
	7.10.	Sustainable development co-benefits	30
	7.11.	Approval and authorization	30
	7.12.	Modalities of communication	31
	7.13.	Specific validation requirements for small-scale project activities	33
	7.14.	Specific validation requirements for afforestation and reforestation project activities	35
	7.15.	Specific validation requirements for small-scale afforestation and reforestation project activities	39
	7.16.	Specific validation requirements for carbon dioxide capture and storage project activities	40
	7.17.	Global stakeholder consultation	46
	7.18.	Validation status and outcomes, opinion and report	48
8.	VALID	ATION OF POST-REGISTRATION CHANGES	49
	8.1.	General validation requirements	49
	8.2.	Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents	50
	8.3.	Permanent changes	51
9.	VERIFICATION OF IMPLEMENTATION AND MONITORING		
	9.1.	General verification requirements	55
	9.2.	Verification of compliance	62
	9.3.	Specific verification requirements for small-scale project activities	68
	9.4.	Specific verification requirements for afforestation and reforestation project activities	69
	9.5.	Specific verification requirements for carbon dioxide capture and storage project activities	70
	9.6.	Global stakeholder consultation	71
	9.7.	Verification status and verification and certification report	72
10.	VALID	ATION FOR RENEWAL OF CREDITING PERIOD	73
	10.1.	General	73

10.2.	Specific validation requirements for carbon dioxide capture and storage project activities	75
APPENDIX.	CALIBRATION	77

# 1. Introduction

#### 1.1. Background

- 1. The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) established the basis of the regulatory framework for the clean development mechanism (CDM) to implement Article 12 of the Kyoto Protocol through the following:
  - (a) Annex to decision 3/CMP.1: Modalities and procedures for a clean development mechanism (hereinafter referred to as the CDM M&Ps);
  - (b) Annexes to decision 4/CMP.1, including annex II: Simplified modalities and procedures for small-scale clean development mechanism project activities (hereinafter referred to as the CDM SSC M&Ps);
  - Annex to decision 5/CMP.1: Modalities and procedures for afforestation and reforestation project activities under the clean development mechanism (hereinafter referred to as the CDM A/R M&Ps);
  - Annex to decision 6/CMP.1: Simplified modalities and procedures for small-scale afforestation and reforestation project activities under the clean development mechanism (hereinafter referred to as the CDM SSC A/R M&Ps);
  - (e) Decision 7/CMP.1: Further guidance relating to the clean development mechanism;
  - (f) Decision 10/CMP.7: Modalities and procedures for carbon dioxide capture and storage in geological formations as clean development mechanism project activities (hereinafter referred to as the CDM CCS M&Ps).
- 2. The CMP revised some of the provisions in these decisions through new decisions in subsequent sessions.
- 3. Pursuant to its mandate from the CMP to operationalize the CDM, the Executive Board of the CDM (hereinafter referred to as the Board) has adopted various standards (including baseline and monitoring methodologies (hereinafter referred to as methodologies) and standardized baselines), methodological tools, guidelines, procedures, clarifications and forms, and revised them with a view to improving the CDM process.

#### 1.2. Objectives

- 4. The objectives of the "CDM validation and verification standard for project activities" (hereinafter referred to as the standard) are to:
  - (a) Enhance consistency and clarity of minimum requirements for CDM validation and verification activities;
  - (b) Improve the quality and consistency in the preparation, execution and reporting of CDM validation and verification activities;
  - (c) Enhance the overall efficiency and integrity of the CDM.

# 2. Scope, applicability and entry into force

#### 2.1. General

5. This standard provides designated operational entities (DOEs) with minimum requirements for validation and verification of a CDM project activity based on the CDM rules and requirements approved by the Board.

#### 2.2. Application

- 6. Sections 5 and 6 contain general principles and requirements for validation and verification.
- 7. Sections 7 contains validation requirements for registration of all types of CDM project activities. The requirements in sections 7.13–7.16 apply specifically to small-scale project activities, large-scale afforestation and reforestation (A/R) project activities, small-scale A/R project activities, and carbon dioxide capture or storage (CCS) project activities, respectively.
- 8. Sections 8 and 10 contain validation requirements for post-registration activities applicable to all types of CDM project activities, validation requirements for post-registration activities specific to large-scale A/R project activities, and validation requirements for renewal of the crediting period of all types of CDM activities including CCS project activities.
- 9. Section 9 contains verification requirements applicable to all types of CDM project activities. The requirements in sections 9.3–9.5 apply specifically to small-scale project activities, large-scale A/R project activities and CCS project activities, respectively.

#### 2.3. Entry into force

10. Version 02.0 of this standard enters into force on 1 January 2019.

### 3. Normative references

- 11. The following referenced documents are indispensable for the application of this standard:
  - (a) "Standard: CDM accreditation standard";
  - (b) "Procedure: CDM project cycle procedure for project activities";
  - (c) "Standard: CDM project standard for project activities";
  - (d) "Glossary: CDM terms".

## 4. Terms and definitions

- 12. In addition to the definitions contained in the "Glossary: CDM terms", the following terms apply in this standard:
  - (a) "Shall" is used to indicate requirements to be followed;
  - (b) "Should" is used to indicate that among several possibilities, one course of action is recommended as particularly suitable;

(c) "May" is used to indicate what is permitted.

# 5. Principles

#### 5.1. General

13. The following principles<sup>1</sup> guide the preparation, execution, and reporting of validation and verification activities.

#### 5.2. Independence

14. Remain independent of the activity being validated or verified, and free from bias and conflict of interest. Maintain objectivity throughout the validation or verification to ensure that the findings and conclusions are based on objective evidence generated during the validation or verification.

#### 5.3. Ethical conduct

15. Demonstrate ethical conduct through trust, integrity, confidentiality and discretion throughout the validation or verification.

#### 5.4. Fair presentation

16. Reflect truthfully and accurately the validation or verification activity, findings, conclusions and reports. Report significant obstacles encountered during the validation or verification, as well as unresolved, diverging opinions among validators or verifiers, the responsible party (e.g. the secretariat/the Board) and the client (e.g. the project participants).

#### 5.5. Due professional care

17. Exercise due professional care and judgement based on the importance of the task performed and the confidence placed by clients and intended users. Have the necessary skills and competences to undertake the validation or verification.

## 6. General validation and verification requirements

#### 6.1. General validation and verification approach

- 18. The DOE shall select a competent team to perform the validation or verification for the CDM project activity.
- 19. In carrying out its validation or verification work, the DOE shall:
  - (a) Follow this standard and integrate its provisions into the DOE's own quality management systems;

<sup>&</sup>lt;sup>1</sup> This text is taken from ISO 14064-3:2006 - Greenhouse gases - Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions and is reproduced with the permission of the International Organization for Standardization, ISO. This standard can be obtained from any ISO member from the website of the ISO Central Secretariat at the following address: <www.iso.org>. Copyright remains with ISO.

- (b) Apply the most recent applicable decisions and guidance provided by the Board;
- (c) Determine whether each CDM project activity meets all applicable CDM rules and requirements, including those specified in the "CDM project standard for project activities", the selected methodologies, the selected standardized baselines and any other standards, methodologies, methodological tools and guidelines applied in accordance with the selected methodologies (hereinafter "any other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the selected(applied) methodologies" are collectively referred to as the other (applied) methodological regulatory documents);
- (d) Assess the accuracy, conservativeness, relevance, completeness, consistency and transparency of the information provided by the project participants;<sup>2</sup>
- (e) Determine whether information provided by the project participants is reliable and credible;<sup>3</sup>
- (f) Apply consistent validation/verification criteria:
  - To the requirements of the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents throughout the crediting period(s);
  - To CDM project activities with similar characteristics such as a similar application of the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents, use of technology, time period or region;
  - (iii) To expert judgements, over time and among CDM project activities;
- (g) Base its findings and conclusions on objective evidence and conduct all validation or verification activities in accordance with CDM rules and procedures;
- (h) Not omit evidence that is likely to alter the validation or verification opinion;
- Present information in the validation report or verification and certification report in a factual, neutral and coherent manner and document all assumptions, provide references to background material, and identify changes made to the documentation;
- (j) Safeguard the confidentiality of all information obtained or created during the validation or verification.

#### 6.2. Use of and compliance with applicable standards

20. In carrying out its validation and verification work, the DOE shall use and determine the compliance with the valid version of applicable standards, methodologies, standardized

<sup>&</sup>lt;sup>2</sup> Principles for each can be found in the "CDM project standard for project activities".

<sup>&</sup>lt;sup>3</sup> Information is credible if it is authentic and is able to inspire belief or trust, and the willingness of persons to accept the quality of evidence. Information is reliable if the quality of evidence is accurate and credible and able to yield the same results on a repeated basis.

baselines, methodological tools, guidelines and other regulatory documents adopted by the CMP or the Board.

#### 6.3. Use of applicable forms

- 21. The DOE contracted to conduct validation for registration of a proposed CDM project activity, post-registration changes or renewal of the crediting period of a registered CDM project activity shall prepare a validation report using the valid version of the relevant validation report form.<sup>4</sup>
- 22. The DOE contracted to conduct verification and certification for the implementation of the registered CDM project activity and monitored greenhouse gas (GHG) emission reductions or net anthropogenic GHG removals shall prepare a verification and certification report using the valid version of the relevant verification and certification report form.<sup>5</sup>
- 23. When completing a validation or verification and certification report form, the DOE shall follow the instructions therein.

#### 6.4. Use of applicable global warming potentials

24. The DOE shall determine whether the global warming potentials (GWPs) were correctly applied in the project design document (PDD) and in the monitoring report in accordance with relevant requirements in the "CDM project standard for project activities".

## 7. Validation for registration of project activities

#### 7.1. General validation requirements

#### 7.1.1. Objectives of validation

25. The DOE shall conduct a thorough and independent assessment of a proposed CDM project activity against the applicable CDM rules and requirements.

#### 7.1.2. Validation approach

- 26. In carrying out its validation work, the DOE shall:
  - (a) Determine whether the proposed CDM project activity complies with the requirements in paragraph 37 of the CDM M&Ps (with the exception of paragraph 37(c) for CCS CDM project activities), the applicability conditions of the selected methodologies, the selected standardized baselines, the other applied methodological regulatory documents, and guidance provided by the Board;
  - (b) Assess the claims and assumptions in the PDD. The evidence used in this assessment shall not be limited to that provided by the project participants.
- 27. The DOE shall make publicly available the PDD received from the project participants in accordance with the "CDM project cycle procedure for project activities".

<sup>&</sup>lt;sup>4</sup> All types of validation report forms are available on the UNFCCC CDM website.

<sup>&</sup>lt;sup>5</sup> All types of verification and certification report forms are available on the UNFCCC CDM website.

#### 7.1.3. Means of validation

#### 7.1.3.1. Standard auditing techniques

- 28. The DOE shall assess the information provided by the project participants.
- 29. In assessing the information, the DOE shall apply the means of validation specified throughout this standard and, where appropriate, standard auditing techniques, including, but not limited to:
  - (a) Document review, involving:
    - (i) A review of data and information;
    - (ii) Cross checks between the information provided in the PDD and information from sources other than those used; if available, the DOE's sectoral or local expertise; and, if necessary, independent background investigations;
  - (b) Follow-up actions (e.g. on-site inspection and telephone or e-mail interviews), including:
    - (i) Interviews with relevant stakeholders in the host country, such as personnel with knowledge of the project design and implementation;
    - Cross checks between information provided by interviewed personnel (i.e. by checking sources or other interviews) to ensure that no relevant information has been omitted;
  - (c) Reference to available information relating to projects or technologies similar to the proposed CDM project activity under validation;
  - (d) Review, based on the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents, of the appropriateness of formulae and accuracy of calculations;
  - (e) Sampling approach in accordance with the "Standard: Sampling and surveys for CDM project activities and programme of activities", including:
    - (i) A random sampling for cases where the project participants did not apply a sampling approach;
    - (ii) An acceptance sampling or another sampling approach for cases where the project participants applied a sampling approach.
- 30. It is mandatory for the DOE to conduct an on-site inspection at validation for the proposed CDM project activity if:
  - (a) Its estimated annual average of greenhouse gas (GHG) emission reductions or net anthropogenic GHG removals is more than 100,000 t CO<sub>2</sub> eq; or
  - (b) There is pre-project information that is relevant to the requirements for registration of the project activity and may not be traceable after the registration.
- 31. For cases that are not referred to in paragraph 30 above, it is optional for the DOE to conduct an on-site inspection at validation. If the DOE does not conduct an on-site

inspection as a means of validation, it shall describe the alternative means used and justify that they are sufficient for the purpose of validation.

32. Where no specific means of validation is specified, the DOE shall apply the standard auditing techniques described in paragraph 29 above.

# 7.1.3.2. Corrective action requests, clarification requests and forward action requests

- 33. If the DOE identifies issues that require further elaboration, research or expansion in order to determine whether the project activity meet the CDM rules and requirements and can achieve credible GHG emission reductions or net anthropogenic GHG removals, the DOE shall ensure that these issues are accurately identified, formulated, discussed and concluded in the validation report.
- 34. The DOE shall raise a corrective action request (CAR) if one of the following situations occurs:
  - (a) The project participants have made mistakes that will influence the ability of the proposed CDM project activity to achieve real, measurable, verifiable and additional GHG emission reductions or net anthropogenic GHG removals;
  - (b) The applicable CDM rules and requirements have not been met;
  - (c) There is a risk that GHG emission reductions or net anthropogenic GHG removals cannot be monitored or calculated.
- 35. The DOE shall raise a clarification request (CL) if information is insufficient or not clear enough to determine whether the applicable CDM rules and requirements have been met.
- 36. The DOE shall raise a forward action request (FAR) during validation to identify issues related to project implementation that require review during the first verification of the proposed CDM project activity. The DOE shall not raise a FAR that relates to the CDM rules and requirements for registration of the project activity.
- 37. The DOE shall resolve or "close out" CARs and CLs only if the project participants modify the project design, rectify the PDD, or provide additional explanations or evidence that satisfy the DOE's concerns. If this is not done, the DOE shall not submit a request for registration of the proposed CDM project activity.
- 38. The DOE shall report on all CARs, CLs and FARs in its validation report. This reporting shall explain the issues raised, the responses provided by the project participants, the means of validation of such responses and references to any resulting changes in the PDD or supporting annexes.

#### 7.2. Demonstration of prior consideration of the clean development mechanism

- 39. The DOE shall determine whether CDM benefits were considered necessary in the decision to undertake the project as a proposed CDM project activity if the starting date of the proposed CDM project activity is prior to the start of validation, which is the date of publication of the PDD for global stakeholder consultation.
- 40. The DOE shall determine whether the start date of the proposed CDM project activity, specified in the PDD, is determined in accordance with the definition of start date in the

"Glossary: CDM terms". The DOE shall determine whether it is a project activity with a start date:

- (a) On or after 2 August 2008; or
- (b) Before 2 August 2008.
- 41. For a proposed CDM project activity with a start date on or after 2 August 2008, the DOE shall confirm, by referring to the list of prior consideration notifications from the UNFCCC CDM website and communication between the project participants, the secretariat and the host Party DNA, if the DNA exists, regarding the commencement of a new project activity and the intention to seek CDM status for the project activity, or referring to the UNFCCC CDM website, whether the PDD has been published within 180 days of the start date. If such notification has not been provided by the project participants or if the PDD has not been published for global stakeholder consultation within 180 days of the start date in accordance with the "CDM project cycle procedure for project activities", the DOE shall determine that the CDM was not seriously considered in the decision to implement the project activity.
- 42. For a proposed CDM project activity with a start date before 2 August 2008, the DOE shall assess the project participants' prior consideration of the CDM. Specifically, the DOE shall assess whether the project participants:
  - (a) Had an awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project. Evidence to support this could include, inter alia, minutes and/or notes related to the consideration of the decision by the board of directors, or equivalent, of the project participants, to undertake the project as a proposed CDM project activity;
  - (b) Demonstrated that real and continuing actions were taken to secure CDM status for the project in parallel with its implementation in accordance with relevant provisions related to the supporting evidence in the "CDM project standard for project activities".
- 43. Assessment of real and continuing actions shall be conducted by the DOE and should focus on real documented evidence as indicated in paragraph 42(b) above, including an assessment by the DOE of the authenticity of the evidence. The DOE shall assess letters, e-mail exchanges and other documented communications submitted by the project participants to substantiate the above information, and these shall be considered as evidence only after the DOE has assessed the reliability and authenticity of such communications, inter alia through cross-checking (e.g. interviews).
- 44. In validating a proposed CDM project activity with a start date before 2 August 2008, where:
  - (a) There is a gap of less than two years between the documented evidence, the DOE shall conclude that continuing and real actions were taken to secure CDM status for the project activity;
  - (b) A gap between documented evidence is greater than two years and less than three years, the DOE may determine that continuing and real actions were taken to

secure CDM status for the project activity and shall justify any positive or negative validation opinion based on the context of the evidence and information assessed;

- (c) A gap between documented evidence is greater than three years, the DOE shall conclude that continuing and real actions were not taken to secure CDM status for the project activity.
- 45. For a proposed CDM project activity with a start date before 2 August 2008, if evidence to support the serious prior consideration of the CDM as indicated above is not available, the DOE shall determine that the CDM was not considered in the decision to implement the project activity.
- 46. The validation report shall:
  - (a) Describe the validation of the project activity start date provided in the PDD;
  - (b) Describe the evidence for prior consideration of the CDM (if necessary) that was assessed and the process of cross-checking the evidence, including the real and continuing action;
  - (c) Provide a validation opinion regarding whether the proposed CDM project activity complies with the applicable requirements related to the prior consideration of the CDM.

#### 7.3. Identification of project type

- 47. The DOE shall determine whether the project participants identified the type of CDM project activity they intend to design and implement in accordance with the "CDM project standard for project activities".
- 48. The DOE shall determine whether the PDD has been completed using the valid version of the PDD form appropriate to the type of the proposed CDM project activity.
- 49. The DOE shall state its opinion on whether the PDD has been completed using the valid version of relevant form and following instructions therein.

#### 7.4. Description of project activity

- 50. The DOE shall determine whether the description of the proposed CDM project activity in the PDD is accurate, complete, and provides an understanding of the proposed CDM project activity.
- 51. If the proposed CDM project activity involves the alteration of an existing installation or process, the DOE shall assess whether the project description states the differences resulting from the project activity compared to the pre-project situation.
- 52. If the proposed CDM project activity is in the same geographical location as a registered CDM project activity whose crediting period has or has not expired (hereinafter referred to as former project), as declared by the project participants in the PDD or based on the finding of the DOE during validation, the DOE shall confirm that the proposed CDM project activity shall not lead to the discontinuation or modification of the former project and will not decrease the GHG emission reductions or removals by the former project based on the relevant requirement of the "CDM project standards for project activities".

- 53. In the case of the implementation of distributed units in household projects without the relevant requirements in the "CDM project standard for programme of activities" being met, the DOE shall validate and confirm by other means that the proposed project activity will not lead to the discontinuation or modification of the former project and will not decrease GHG emission reductions or removals by the former project, and justify the assessment in its validation report. The DOE shall use its local and sectoral expertise to confirm that there is no overlap of different measures and, where applicable, apply the "Guidelines for the consideration of interactive effects for the application of multiple CDM methodologies for a programme of activities" to address cross-effects.
- 54. In all other cases, if the project participants have not submitted a communication to the Board to request clarification in accordance with the "CDM project standard for project activities", the DOE shall submit such communication to the Board in accordance with the "Procedure: Direct communication with stakeholders" prior to submitting a request for registration of the project activity.
- 55. If the proposed CDM project activity was a component project activity (CPA) that has been previously excluded from a registered CDM programme of activities (PoA), the DOE shall assess whether:
  - The project activity transparently declares that it was a CPA in a registered CDM PoA and has been previously excluded from it, either voluntarily or due to erroneous inclusion;
  - (b) The crediting period type (i.e. renewable or fixed) and the total length of the crediting period (i.e. maximum 21 years for the renewable crediting period type and maximum 10 years for the fixed crediting period type) and its end date are the same as before the exclusion;
  - (c) The project activity meets all relevant requirements for registration of project activities valid at the time of submission of the request for registration as a CDM project activity;
  - (d) If the project activity applies a methodology that potentially accrues negative emission reductions, emission reductions have been continuously monitored since the end of the monitoring period in the last published monitoring report for the CPA, including the exclusion period. For such a project activity, if there were net negative emission reductions during the period before the registration as a CDM project activity, the amount shall be deducted from the first requests for issuance after the registration;
  - (e) If the CPA has been excluded as a result of erroneous inclusion and if certified emission reductions (CERs) have been issued for the CPA, an equivalent amount of Kyoto credits have been compensated by the DOE that included the CPA or that validated the CPA at its first verification if it was included by the coordinating/managing entity, in the CDM registry in accordance with the "CDM project cycle procedure for project activities".
- 56. The DOE shall:
  - (a) Describe the process undertaken to validate the accuracy and completeness of the project description;

(b) State its opinion on the accuracy and completeness of the project description.

#### 7.5. Selection of methodologies and standardized baselines

#### 7.5.1. General

57. The DOE shall apply specific guidance and/or clarifications provided by the Board with respect to the approved methodologies, standardized baselines and other methodological regulatory documents that are selected by the project participants.

#### 7.5.2. Deviation from methodology and/or methodological tool

- 58. The DOE may seek guidance from the Board on the acceptability of a deviation from a selected approved methodology or methodological tool prior to the submission of a request for registration or publication of the PDD, if the DOE, when performing validation for the proposed CDM project activity, or upon request from the project participants before the publication of the PDD, finds that, due to a project-specific<sup>6</sup> issue implying that a revision of the methodology and/or methodological tool would not be required to address the issue, the project participants deviated from:
  - (a) The selected methodology or methodological tool; or
  - (b) Sections in the selected methodology or methodological tool that are not standardized by the selected standardized baselines, if the proposed CDM project activity applies standardized baselines.
- 59. The DOE shall submit to the Board an assessment of the case including demonstration that the deviation does not require revision of the selected methodology or methodological tool, and shall include a description of the impact of the deviation on GHG emission reductions or net anthropogenic GHG removals by the proposed CDM project activity in accordance with the "CDM project cycle procedure for project activities".

- (b) A proposed CDM project activity does not have access to the data sources specified by the methodology for a certain parameter; a different source of data can be accessed by the CDM project activity to estimate the parameter with equal reliability and accuracy;
- (c) A minor deviation is sought for a project-specific situation, which is well justified and conservative. For example: a methodology requires limiting production in the project scenario between +/- 5% of rated capacity, if the historical baseline is to be applied. Due to government restrictions, the plant has never been operated at its rated capacity but at a capacity which is much below its rated capacity (20% below the rated capacity). A deviation can be presented specifying conservative approaches to calculate the emission reduction in such a project-specific case;
- (d) A conservative estimation technique or default factor suggested addressing uncertainties related to project-specific situations, which are not addressed in the methodology. For example, a well-justified conservative uncertainty factor proposed to be used in equations of baseline emissions to address uncertainties in the real-life situation during the crediting period.

<sup>&</sup>lt;sup>6</sup> Examples of project-specific issues include, but are not limited to, the following:

<sup>(</sup>a) The methodology requires measurements using instrumentation of certain specifications or using a certain method. The project participants of the proposed CDM project activity identify a difficulty in acquiring the specified instrumentation or difficulty in implementing the measurement method; however, they can achieve comparable accuracy of measured parameters using an alternative instrumentation or measurement method;

60. Alternatively, if the DOE considers that a revision of the selected methodology or methodological tool would be required to address the project situation then the DOE shall request the project participants to submit a request for revision in accordance with the "CDM project cycle procedure for project activities".

#### 7.5.3. Clarification on applicability of methodology, tool and/or standardized baseline

61. If the DOE cannot determine the applicability of a selected methodology, methodological tool and/or standardized baseline to the proposed CDM project activity, the DOE shall request a clarification on the applicability in accordance with the "Procedure: Development, revision and clarification of baseline and monitoring methodologies and methodological tools" and/or the "Procedure: Development, revision, clarification and update of standardized baselines". The DOE shall conduct an assessment to ensure that the request is not submitted with the intention of revising the selected methodology, methodological tool and/or standardized baseline to expand their applicability.

#### 7.6. Application of methodologies and standardized baselines

#### 7.6.1. General

- 62. The DOE shall validate that the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents are applicable to the proposed CDM project activity and that the selected versions are valid at the time of submission of the proposed CDM project activity for registration.
- 63. The DOE shall determine whether the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents apply to the proposed CDM project activity and was correctly applied with respect to the following:
  - (a) Project boundary;
  - (b) Baseline identification;
  - (c) Algorithms and/or formulae used to determine emission reductions;
  - (d) Additionality;
  - (e) Monitoring methodology.
- 64. The DOE shall determine whether the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents are correctly quoted and applied by comparing them with the actual text of the valid version of these documents,<sup>7</sup> and relevant requirements in the "CDM project standard for project activities".
- 65. If the PDD of a proposed project activity is based on a previous version of a methodology or a standardized baseline and was published for global stakeholder consultation but was not submitted for registration within the grace period for applying the later version, the DOE shall request the project participants to provide a revised PDD in accordance with the "CDM project cycle procedure for project activities".

An approved methodology, an approved standardized baseline and other methodological regulatory documents apply to the proposed CDM project activity if the applicability conditions of these documents are met.

- 66. The DOE shall request the project participants to provide a revised PDD in accordance with the "CDM project cycle procedure for project activities" if:
  - (a) The PDD has been published for global stakeholder consultation when no applicable approved standardized baseline was valid;
  - (b) An applicable approved standardized baseline whose selection is mandatory has become valid after the publication of the PDD for global stakeholder consultation but before the submission of a request for registration of the proposed CDM project activity;
  - (c) The request for registration has not been submitted within 240 days after the standardized baseline became valid.
- 67. The DOE shall determine whether the proposed CDM project activity meets all the applicability conditions of the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents. This shall be done by validating the documentation referred to in the PDD and by verifying that the documentation content is correctly quoted and interpreted in the PDD. If the DOE, based on local and sectoral knowledge, is aware that comparable information is available from credible sources other than that used in the PDD, then the DOE shall cross-check the PDD against other sources to confirm that the CDM project activity meets the applicability conditions of the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents.
- 68. For each applicability condition listed in the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents, the DOE shall describe the steps taken to assess the relevant information contained in the PDD against these criteria. The DOE shall state its opinion on the applicability of the selected methodologies, the selected standardized baselines and the other applied methodological regulatory documents to the proposed CDM project activity.

#### 7.6.2. Project boundary, sources and greenhouse gases

- 69. The DOE shall determine whether all main GHG emission sources, the project boundary of the proposed CDM project activity, and other relevant project and baseline emission sources covered in the applied methodologies and the applied standardized baselines are included within the project boundary for the purpose of calculating project and baseline emissions for the proposed CDM project activity.
- 70. The DOE shall confirm the project boundary based on documented evidence and, where conducted in accordance with paragraph 30 or 31 above, shall corroborate it by an on-site inspection.
- 71. If the applied methodologies and the applied standardized baselines allow the project participants to choose whether a source or gas is to be included within the project boundary, the DOE shall determine whether the project participants have justified that choice. The DOE shall determine whether the justification provided is reasonable, based on an assessment of supporting documented evidence provided by the project participants and corroborated by observations if required.
- 72. For the proposed CDM project activities that have both A/R and non-A/R components, in order to avoid double counting of emission sources, the DOE shall confirm that the

emissions associated with the A/R activity will be accounted for and documented by the A/R CDM project activity.

- 73. The DOE shall describe how the validation of the project boundary has been performed by detailing the documentation assessed (e.g. a commissioning report) and, where conducted in accordance with paragraph 30 or 31 above, by describing its observations during any on-site inspection undertaken (i.e. observations of the physical site or equipment used in the process).
- 74. The DOE shall state whether the identified boundary and the selected sources and gases are justified for the proposed CDM project activity. Should the DOE identify emission sources that will be affected by the implementation of the CDM project activity and which are expected to contribute more than 1 per cent of the overall expected average annual GHG emission reductions or net anthropogenic GHG removals, and are not addressed by the applied methodologies or the applied standardized baselines, the DOE shall request a clarification of, revision to, or deviation from the methodologies or the standardized baselines, as appropriate.

#### 7.6.3. Baseline scenario

- 75. The DOE shall determine whether the baseline identified for the proposed CDM project activity is the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CDM project activity.
- 76. The following applies to a proposed CDM project activity using an approved standardized baseline that standardizes the baseline scenario instead of paragraph 75 above: The DOE shall determine whether the baseline scenario for the proposed CDM project activity described in the PDD is the scenario identified by the selected standardized baseline.
- 77. The DOE shall determine whether any procedure contained in the applied methodologies to identify the most reasonable baseline scenario has been correctly applied. If the applied methodologies require the use of methodological tools (such as the "Tool for the demonstration and assessment of additionality" and the "Combined tool to identify the baseline scenario and demonstrate additionality") to establish the baseline scenario, the DOE shall consult the methodologies on the application of these methodological tools. In such cases, the specific guidance in the methodologies shall supersede the corresponding requirements of the methodological tools.
- 78. If the applied methodologies require several alternative scenarios to be considered in the identification of the most plausible baseline scenario, the DOE shall, based on financial expertise and local and sectoral knowledge, determine whether all scenarios that are considered by the project participants and any scenarios that are supplementary to those required by the methodologies, are realistic and credible in the context of the proposed CDM project activity and that no alternative scenario has been excluded.
- 79. The DOE shall determine whether the most plausible baseline scenario identified is reasonable by validating the assumptions, calculations and rationales used in the PDD. It shall determine whether documents and sources referred to in the PDD are correctly quoted and interpreted. The DOE shall cross-check the information provided in the PDD with other verifiable and credible sources, such as local expert opinion, if available.

- 80. The DOE shall determine whether the PDD provides a description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity.
- 81. The DOE shall determine whether, drawing on its knowledge of the sector and/or advice from local experts, all applicable CDM rules and requirements have been taken into account in the identification of the baseline scenario for the proposed CDM project activity, as well as relevant national and/or sectoral policies, regulations and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector. Two types of national and/or sectoral policies or regulations have to be taken into account:
  - (a) National and/or sectoral policies or regulations that give comparative advantages to more emissions-intensive technologies or fuels over less emissions-intensive technologies or fuels, otherwise known as policies that increase GHG emissions, and are called type E+ policies. For this type of national and/or sectoral policies or regulations, only those that have been implemented before the adoption of the Kyoto Protocol by the Conference of the Parties (COP) (decision 1/CP.3, 11 December 1997) shall be taken into account when identifying a baseline scenario. If such national and/or sectoral policies or regulations were implemented since the adoption of the Kyoto Protocol, the baseline scenario shall refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place;
  - (b) National and/or sectoral policies or regulations that give comparative advantages to less emissions-intensive technologies over more emissions-intensive technologies (e.g. public subsidies to promote the diffusion of renewable energy or to finance energy efficiency programmes), otherwise known as policies that decrease GHG emissions, and are called type E- policies. For this type of national and/or sectoral policies or regulations, those that have been implemented since the adoption by the COP of the modalities and procedures for the CDM<sup>8</sup> need not be taken into account in identifying a baseline scenario (i.e. the baseline scenario could refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place).
- 82. The following applies to a proposed CDM project activity using an approved standardized baseline that standardizes the baseline scenario instead of paragraphs 77–81 above: The DOE shall determine whether the description of the identified baseline scenario in the PDD is in accordance with the selected standardized baseline.
- 83. The DOE shall describe the steps taken to assess the requirements and state its opinion on whether:
  - (a) All the assumptions and data used by the project participants are listed in the PDD, including their references and sources;
  - (b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PDD;

<sup>&</sup>lt;sup>8</sup> Decision 17/CP.7.

- (c) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;
- (d) Relevant national and/or sectoral policies, regulations and circumstances are considered and listed in the PDD;
- (e) The applied methodologies have been correctly followed to identify the most plausible baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.
- 84. The DOE shall describe other steps taken and sources of information used to cross-check the information contained in the PDD.
- 85. The following applies to a proposed CDM project activity using an approved standardized baseline that standardizes the baseline scenario instead of paragraphs 83 and 84 above: The DOE shall state its opinion on whether the description of the identified baseline scenario in the PDD is in accordance with the selected standardized baseline.

#### 7.6.4. Demonstration of additionality

#### 7.6.4.1. General

- 86. The DOE shall determine whether the proposed CDM project activity is additional as demonstrated in the PDD.<sup>9</sup>
- 87. The DOE shall assess and verify the reliability and credibility of all data, rationales, assumptions, justifications and documentation provided by the project participants to support the demonstration of additionality. This requires the DOE to critically assess the evidence presented, using local knowledge and sectoral and financial expertise.
- 88. If required by the applied methodologies, the DOE shall consider methodological tools and guidelines provided by the Board to demonstrate the additionality of proposed CDM project activities. The DOE shall also consider specific complementary or alternative requirements included in the applied methodologies for demonstrating the additionality of the proposed CDM project activity.
- 89. The following applies to a proposed CDM project activity using an approved standardized baseline that standardizes additionality instead of paragraphs 87 and 88 above and 96–109 below: The DOE shall assess whether the proposed CDM project activity meets the additionality criteria (e.g. positive lists of technologies) in the applied standardized baseline.
- 90. The DOE shall describe all steps taken and sources of information used to cross-check the information contained in the PDD. The DOE shall describe how it has determined that the evidence assessed is credible, where appropriate.

<sup>&</sup>lt;sup>9</sup> In accordance with decision 3/CMP.1, annex, paragraph 43, "A CDM project activity is additional if anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity." While specific elements of the assessment of additionality are discussed in further detail below, not all elements discussed below will be applicable to all proposed CDM project activities.

#### 7.6.4.2. Identification of alternatives

- 91. The requirements contained in paragraphs 92–95 below are not applicable to a proposed CDM project activity using an approved standardized baseline that standardizes the baseline scenario.
- 92. Where the baseline scenario is not prescribed in the applied methodologies, the DOE shall assess the list of identified credible alternatives to the proposed CDM project activity in the PDD selected to determine the most realistic baseline scenario.
- 93. The DOE shall assess the list of alternatives given in the PDD and to determine whether:
  - (a) The list of alternatives includes as one of the options that the project activity is undertaken without being registered as a proposed CDM project activity;
  - (b) The list contains all plausible alternatives that the DOE, on the basis of its local and sectoral knowledge, considers to be viable means of supplying the comparable outputs or services that are to be supplied by the proposed CDM project activity;
  - (c) The alternatives comply with all applicable and enforced legislation.
- 94. Where the baseline scenario is prescribed in the applied methodologies, no further analysis is required.
- 95. The DOE shall describe whether it considers the listed alternatives to be credible and complete.

#### 7.6.4.3. Investment analysis

- 96. If investment analysis has been used to demonstrate the additionality of the proposed CDM project activity, the DOE shall determine whether the proposed CDM project activity would not be:
  - (a) The most economically or financially attractive alternative; or
  - (b) Economically or financially feasible without the revenue from the sale of CERs.
- 97. The DOE shall apply the valid version of the "Methodological tool: Investment analysis" as provided by the Board and other relevant provisions.
- 98. The DOE shall determine whether the proposed CDM project activity is not the most economically or financially attractive alternative, or that it is not economically or financially feasible without the CDM:<sup>10</sup>
  - (a) The proposed CDM project activity would produce no financial or economic benefits other than CDM-related income. The DOE shall determine whether the documented costs associated with the proposed CDM project activity and the alternatives identified demonstrate that there is at least one alternative which is less costly than the proposed CDM project activity;

<sup>&</sup>lt;sup>10</sup> It should be noted the valid version of the "Methodological tool: Investment analysis", and the requirements of specific methodologies may preclude the use of one of these options in certain scenarios.

- (b) The proposed CDM project activity is less economically or financially attractive than at least one other credible and realistic alternative;
- (c) The financial returns of the proposed CDM project activity would be insufficient to justify the required investment.
- 99. To verify the accuracy of financial calculations carried out for any investment analysis, the DOE shall:
  - (a) Determine the suitability of the financial indicator selected by the project participants and conduct a thorough assessment of all parameters and assumptions used in calculating such financial indicators, and determine the accuracy and suitability of these parameters using available evidence and applying its expertise in relevant accounting practices;
  - (b) Cross-check the parameters against third-party or publicly available sources, such as invoices or price indices;
  - Review, as appropriate, feasibility reports, public announcements and annual financial reports related to the proposed CDM project activity and the project participants;
  - (d) Assess the correctness of computations carried out and documented by the project participants;
  - (e) Assess, where applicable, the sensitivity analysis by the project participants to determine under what conditions variations in the result would occur, and the likelihood of these conditions.
- 100. To confirm the suitability of any benchmark applied in the investment analysis, the DOE shall:
  - (a) Determine whether the type of benchmark applied is suitable for the type of financial indicator presented;
  - (b) Ensure that any risk premiums applied in determining the benchmark reflect the risks associated with the project type or activity;
  - (c) Determine whether it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark.
- 101. Where the project participants rely on values from feasibility study reports (FSRs) that are approved by national authorities for proposed CDM project activities, the DOE shall determine whether:
  - (a) The FSR is the basis for the decision to proceed with the investment in the project, i.e. that the period of time between the finalization of the FSR and the investment decision is sufficiently short that it is unlikely in the context of the underlying project activity that the input values would have materially changed;
  - (b) The values used in the PDD and associated annexes are fully consistent with the FSR, and where inconsistencies occur the DOE shall assess the appropriateness of the values;

- (c) The input values from the FSR are valid and applicable at the time of investment decision. The DOE shall confirm this on the basis of its specific local and sectoral expertise and by cross-checking or other appropriate means.
- 102. The DOE shall:
  - (a) Describe in detail how the parameters used in any financial calculations, including those taken from the FSR, if applicable, have been validated;
  - (b) Describe how the suitability of any benchmark applied has been assessed;
  - (c) Confirm whether the underlying assumptions are appropriate and the financial calculations are correct.

#### 7.6.4.4. Barrier analysis

- 103. If barrier analysis<sup>11</sup> was used to demonstrate the additionality of the proposed CDM project activity, the DOE shall determine whether the proposed CDM project activity faces barriers that:
  - (a) Prevent the implementation of this type of proposed CDM project activity;<sup>12</sup>
  - (b) Do not prevent the implementation of at least one of the alternatives.
- 104. The DOE shall determine whether issues that have a direct impact<sup>13</sup> on the financial returns of the proposed CDM project activity are not considered barriers and shall be assessed by investment analysis. This does not refer to either:
  - (a) Risk-related barriers, for example risk of technical failure, that could have negative effects on financial performance; or
  - (b) Barriers related to the unavailability of sources of finance for the project activity.
- 105. The DOE shall apply a two-step process in assessing the barrier analysis performed, as follows:
  - (a) Determine whether the barriers are real: The DOE shall assess the available evidence and/or conduct interviews with relevant individuals (including members of industry associations, government officials or local experts if necessary) to determine whether the barriers listed in the PDD exist. The DOE shall determine whether the existence of barriers is substantiated by independent sources of data such as relevant national legislation, surveys of local conditions and national or international statistics. If the existence of a barrier is substantiated only by the opinions of the project participants, the DOE shall not consider this barrier to be adequately substantiated. If the DOE considers, on the basis of its sectoral or local

<sup>&</sup>lt;sup>11</sup> Barriers are issues in project implementation that could prevent a potential investor from pursuing the implementation of the proposed CDM project activity. The identified barriers are only sufficient grounds for demonstration of additionality if they would prevent potential project participants from carrying out the proposed CDM project activity without being registered as a CDM project activity.

<sup>&</sup>lt;sup>12</sup> See the valid version of the "Guidelines for objective demonstration and assessment of barriers".

<sup>&</sup>lt;sup>13</sup> Defined in this context as those issues whose impacts can be expressed in monetary terms with reasonable certainty.

expertise, that a barrier is not real or is not supported by sufficient evidence, it shall raise a CAR to have reference to this barrier removed from the project documentation;

- (b) Determine whether the barriers prevent the implementation of the proposed CDM project activity but not the implementation of at least one of the possible alternatives: Since not all barriers present an insurmountable hurdle to a project activity being implemented, the DOE shall apply its local and sectoral expertise to judge whether a barrier or set of barriers would prevent the implementation of the proposed CDM project activity and would not equally prevent implementation of at least one of the possible alternatives, in particular the identified baseline scenario.
- 106. The DOE shall:
  - (a) Provide an assessment of each barrier listed in the PDD, which describes how it has undertaken validation of the barrier;
  - (b) Provide an overall determination of the credibility of the barrier analysis performed.

#### 7.6.4.5. Common practice analysis

- 107. For proposed large-scale CDM project activities, unless the proposed project type is a first of its kind as determined in accordance with the relevant guidelines, the DOE shall assess whether the project participants have conducted a common practice analysis.<sup>14</sup>
- 108. The DOE shall use official sources and its local and sectoral expertise to:
  - (a) Assess whether the geographical scope (e.g. the defined region) of the common practice analysis is appropriate for the assessment of common practice related to the project activity's technology or industry type. For certain technologies, the relevant region for assessment will be local and for others it may be transnational/global. If a region other than the entire host country is chosen, the DOE shall assess the explanation of why this region is more appropriate;
  - (b) Determine to what extent similar and operational projects (e.g. using a similar technology or practice), other than CDM project activities,<sup>15</sup> have been undertaken in the defined region;
  - (c) Assess, if similar and operational projects, other than CDM project activities, are already "widely observed and commonly carried out" in the defined region, whether there are essential distinctions between the proposed CDM project activity and the other similar activities.

<sup>&</sup>lt;sup>14</sup> This is a test to complement the investment analysis (step 2 of the additionality tool) or barrier analysis (step 3 of the additionality tool) to confirm that the proposed CDM project activity is not widely observed and commonly carried out in the region.

<sup>&</sup>lt;sup>15</sup> Registered CDM project activities and proposed CDM project activities that have been published on the UNFCCC website for global stakeholder consultation as part of the validation processes.

#### 109. The DOE shall:

- Describe how the geographical scope of the common practice analysis has been validated, considering the technology or industry type to which the proposed CDM project activity belongs;
- (b) Describe how it has undertaken an assessment of the existence of similar projects;
- (c) Describe how it has assessed the essential distinctions between the proposed CDM project activity and any similar projects that are widely observed and commonly carried out;
- (d) Confirm whether the proposed CDM project activity is not common practice.

#### 7.6.5. Estimation of emission reductions or net anthropogenic removals

- 110. The DOE shall determine whether the description of how to undertake the ex ante and ex post calculations of baseline, project and leakage GHG emissions as well as GHG emission reductions to be achieved by the proposed CDM project activity is in accordance with the applied methodologies, the applied standardized baselines, the other applied methodological regulatory documents and, where applicable, the "Standard: Sampling and surveys for CDM project activities and programme of activities".
- 111. Where the applied methodologies, the applied standardized baselines or the other applied methodological regulatory documents allow for selection between options for equations or parameters, the DOE shall determine whether adequate justification has been provided (based on the choice of the baseline scenario, context of the proposed CDM project activity and other evidence provided) and that the correct equations and parameters have been used, in accordance with the applied methodologies,<sup>16</sup> the applied standardized baselines and the other applied methodological regulatory documents.
- 112. The DOE shall verify the justification given in the PDD for the choice of data and parameters used in the equations:
  - (a) Data and parameters fixed ex ante: If data and parameters will not be monitored throughout the crediting period of the proposed CDM project activity but have already been determined and will remain fixed throughout the crediting period, the DOE shall determine whether all data sources and assumptions are appropriate and calculations are correct as applicable to the proposed CDM project activity, and will result in an accurate or otherwise conservative estimate of the emission reductions. If the applied methodologies require that any of these data and parameters be determined in accordance with the "Standard: Sampling and surveys for CDM project activities and programme of activities", the DOE shall determine whether the sampling efforts were undertaken in accordance with this standard;
  - (b) **Data and parameters to be monitored**: If data and parameters will be monitored or estimated on implementation and hence become available only after validation

<sup>&</sup>lt;sup>16</sup> For proposed CDM project activities that have both A/R and non-A/R components, in order to avoid double counting of emission sources, the emissions associated with A/R activity shall be accounted for and clearly documented by the proposed A/R CDM project activity (see EB 25 report, paragraphs 38 and 48).

of the proposed CDM project activity, the DOE shall determine whether the estimates provided in the PDD for these data and parameters are reasonable. If the applied methodologies require that any of these estimates be determined in accordance with the "Standard: Sampling and surveys for CDM project activities and programme of activities", the DOE shall determine whether the sampling efforts were undertaken in accordance with this standard.

- 113. The DOE shall describe the steps taken to assess the requirements and state its opinion on whether:
  - (a) All assumptions and data used by the project participants are listed in the PDD, including their references and sources;
  - (b) All documentation used by the project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD;
  - (c) All values used in the PDD including GWPs are considered reasonable in the context of the proposed CDM project activity;
  - (d) The methodologies and, where applicable, the standardized baselines and the other methodological regulatory documents have been applied correctly to calculate baseline, project and leakage GHG emissions, as well as GHG emission reductions;
  - (e) All estimates of the baseline GHG emissions can be replicated using the data and parameter values provided in the PDD;
  - (f) The sampling efforts were undertaken in accordance with the "Standard: Sampling and surveys for CDM project activities and programme of activities", where the applied methodologies require that the data and parameters be determined in accordance with this standard.
- 114. The DOE shall describe how it has verified the data and parameters used in the equations, including references to any other data sources used.

#### 7.6.6. Monitoring plan

#### 7.6.6.1. General

- 115. If the project participants included a monitoring plan in the PDD for validation for registration of the proposed CDM project activity, the DOE shall apply the requirements in section 7.6.6.2 below.
- 116. If the project participants chose to delay the submission of the monitoring plan for the proposed CDM project activity, the DOE shall apply the requirements in section 7.6.6.3 below.

#### 7.6.6.2. Validation of the monitoring plan

117. The DOE shall determine whether the description of the monitoring plan included in the PDD complies with the applied methodologies, the applied standardized baselines, the other applied methodological regulatory documents and, where applicable, the "Standard: Sampling and surveys for CDM project activities and programme of activities".

- 118. The DOE shall apply a three-step process to meet the above requirement:
  - (a) To assess compliance of the monitoring plan with the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents, the DOE shall:
    - (i) Identify the list of parameters required by the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents by means of document review;
    - Confirm that the description of the monitoring plan contains all necessary parameters, that they are described, and that the means of monitoring described in the monitoring plan comply with the requirements of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents;
  - (b) To assess the feasibility of the monitoring plan, the DOE shall, by means of review of the documented procedures, interviews with relevant personnel, project plans and, where conducted in accordance with paragraph 30 or 31 above, any on-site inspection of the proposed CDM project activity, assess whether:
    - (i) The monitoring arrangements described in the monitoring plan are feasible within the project design;
    - (ii) The means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that GHG emission reductions achieved by/resulting from the proposed CDM project activity can be reported ex post and verified;
  - (c) To determine whether the proposed sampling plan provides parameter value estimates in an unbiased and reliable manner, where the project participants applied a sampling approach to determine data and parameters, the DOE shall assess the proposed sampling plan in accordance with the "Standard: Sampling and surveys for CDM project activities and programme of activities".
- 119. The DOE shall:
  - (a) State its opinion on the compliance of the monitoring plan with the requirements of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents and, where applicable, the "Standard: Sampling and surveys for CDM project activities and programme of activities";
  - (b) Describe the steps undertaken to assess whether the monitoring arrangements described in the monitoring plan are feasible within the project design;
  - (c) State its opinion on the project participants' ability to implement the monitoring plan.

#### 7.6.6.3. Delayed validation of monitoring plan

120. The DOE shall confirm whether the project participants chose to delay the submission of the monitoring plan for the proposed CDM project activity.

- 121. The DOE shall determine whether the relevant sections for the monitoring plan in the PDD do not contain the information related to the monitoring plan and clearly state that the delayed submission of the monitoring plan has been chosen by the project participants.
- 122. The DOE shall document the decision taken by the project participants to delay the submission of the monitoring plan.

#### 7.7. Start date, crediting period type and duration

- 123. The DOE shall determine whether the project participants specified the following on the start date and crediting period type and duration of the proposed CDM project activity in accordance with relevant requirements in the "CDM project standard for project activities":
  - (a) Start date of the proposed CDM project activity;
  - (b) Expected operational lifetime;
  - (c) Type and duration of the crediting period;
  - (d) Start date of the crediting period.
- 124. The DOE shall assess the start date and crediting period type and duration specified in the PDD by means of a document review, use of official sources and its local and sectoral expertise, interviews with relevant personnel and/or, where conducted in accordance with paragraph 30 or 31 above, on-site inspection(s).
- 125. The DOE shall describe the steps taken to assess and state its opinion on the start date and crediting period type and duration specified in the PDD with the relevant requirements in the "CDM project standard for project activities".

#### 7.8. Environmental impacts

- 126. The DOE shall determine whether the project participants conducted an analysis of the environmental impacts of the proposed CDM project activity, including transboundary impacts, and whether those impacts are considered significant by the project participants or by the host Party.
- 127. The DOE shall also determine whether the project participants conducted an environmental impact assessment, if considered significant by the project participants or by the host Party, in accordance with the host Party's procedures.
- 128. The DOE shall assess the above requirements by means of a document review and/or using local official sources and expertise.
- 129. The DOE shall state whether the project participants have undertaken an analysis of environmental impacts and, if considered significant by the project participants or by the host Party, an environmental impact assessment in accordance with procedures as required by the host Party.

#### 7.9. Local stakeholder consultation

130. The DOE shall determine whether the project participants have completed the local stakeholder consultation in accordance with the relevant requirements in the "CDM project standard for project activities".

- 131. The DOE shall determine whether there are applicable host Party rules on local stakeholder consultation. Where such rules exist, the DOE shall, by means of document review and interviews with local stakeholders and/or the DNA, as appropriate, determine whether the local stakeholder consultation was conducted in accordance with the rules.
- 132. If applicable host Party rules on local stakeholder consultation do not exist, the DOE shall, by means of document review and interviews with local stakeholders and/or the DNA as appropriate, determine whether the local stakeholder consultation was conducted in accordance with the requirements in the "CDM project standard for project activities" pertaining to:
  - (a) Scope of local stakeholder consultation;
  - (b) Minimum group of stakeholders to be involved;
  - (c) Means for inviting stakeholders' participation;
  - (d) Information to be made available to stakeholders;
  - (e) Conduct of consultation;
  - (f) Summary of comments received;
  - (g) Consideration of comments received;
  - (h) Timing of local stakeholder consultation.
- 133. If the DOE used interviews with local stakeholders and/or the DNA as a means of validation as referred to in paragraphs 131 and 132 above, and if the local stakeholders and/or the DNA provided no response to the DOE's request for an interview within 14 days of the request being made, the DOE may proceed with the information available.
- 134. If the DOE, after the completion of the local stakeholder consultation, receives complaints from local stakeholders on the handling of the outcome of the consultation forwarded by the DNA in accordance with the "CDM project standard for project activities", it shall promptly forward them to the project participants and thereafter determine whether the project participants have duly taken them into account. The DOE may proceed with the validation with the complaints received within 14 days of the request for forwarding, if any.
- 135. The DOE shall determine whether changes to the PDD are made after the local stakeholder consultation. If the DOE identifies such changes, it shall assess whether:
  - (a) The comments received through the local stakeholder consultation are still valid;
  - (b) The scope of the local stakeholders engaged is still valid.
- 136. If significant changes to the project design occurs after the local stakeholder consultation, the DOE shall determine whether a new local stakeholder consultation was conducted with relevant stakeholders in accordance with paragraphs 131 and 132 above.
- 137. The DOE shall:
  - (a) Describe the steps taken to assess the adequacy of the local stakeholder consultation;
  - (b) State its opinion on the adequacy of the local stakeholder consultation.

#### 7.10. Sustainable development co-benefits

138. The DOE shall state whether a document describing how the project participants intend to monitor sustainable development co-benefits of the proposed CDM project activity was developed by the project participants separately from the monitoring plan.

#### 7.11. Approval and authorization

#### 7.11.1. Approval

- 139. The DOE shall determine whether the designated national authority (DNA) of each Party indicated in the PDD as being involved in the proposed CDM project activity has provided a written letter of approval.
- 140. The DOE shall determine whether each letter provided by the DNA of each Party involved in the proposed CDM project activity confirms that:
  - (a) The Party is a Party to the Kyoto Protocol;
  - (b) The participation in the CDM project activity is voluntary;
  - (c) In the case of the host Party, the CDM project activity contributes to achieving the sustainable development of the country;
  - (d) It refers to the precise title of the CDM project activity in the PDD being submitted for registration (i.e. there shall be no difference between the title in the letter and that in the PDD).
- 141. The DOE shall determine whether the letter of approval is unconditional with respect to paragraph 140(a)–(d) above.
- 142. The DOE shall determine whether the letter of approval indicates that a proposed CDM project activity or proposed bundled small-scale CDM project activities have only one host Party in which the project activity(ies) are located, as set out in the PDD.
- 143. The DOE shall determine whether the letter of approval has been issued by the respective Party's DNA and is valid for the proposed CDM project activity under validation.<sup>17</sup>
- 144. If the DOE doubts the authenticity of the letter of approval, it shall verify with the DNA that the letter of approval is authentic.
- 145. The DOE shall, for each Party involved:
  - (a) Indicate whether a letter of approval has been received, referencing the letter itself and any supporting documentation;
  - (b) Indicate whether the DOE received the letter of approval from the project participants, or directly from the DNA;
  - (c) Indicate the means of validation employed to assess the authenticity of the letter of approval if paragraph 144 above applies;

<sup>&</sup>lt;sup>17</sup> A list of DNAs is available on the UNFCCC CDM website.

- (d) Include a statement on whether the letter of approval meets the requirements referred to in paragraphs 140–144 above, as applicable.
- 146. If the letter of approval refers to a specific version of the validation report and the DOE therefore is unable to submit this precise version of the validation report, the DOE shall:
  - (a) Insert a statement in the validation report to indicate that the final letter of approval has not been received and that a request for registration will not be submitted until it has been received; or
  - (b) Update the validation report to reflect the receipt of the letter of approval. If this option is selected, the whole number of the version number of the validation report shall remain unchanged and the tens decimal place shall be increased (e.g. from 1.0 to 1.1). The DOE shall confirm in the validation report that the confirmation of the receipt of the letter of approval is the only change that has been made to the version referred to in the letter of approval.

#### 7.11.2. Authorization

- 147. The DOE shall determine whether each project participant of the proposed CDM project activity has been authorized to participate in the project activity by at least one Party involved in the letter of approval referred to in paragraph 139 above or in a separate authorization letter.
- 148. The DOE shall confirm that the project participants of the proposed CDM project activity are listed in the PDD and that this information is consistent with the information provided in the section that contains the contact information of project participants.
- 149. The DOE shall confirm that no entities other than those authorized as the project participants of the proposed CDM project activity are included in these sections of the PDD.
- 150. The DOE shall confirm that the authorization has been issued from the relevant DNA, and if in doubt, shall verify with the DNA that the authorization is valid for the project participants of the proposed CDM project activity.
- 151. The DOE shall, for each project participant of the proposed CDM project activity:
  - (a) Indicate whether the participation has been authorized by a Party to the Kyoto Protocol;
  - (b) Describe the means of validation used to support the conclusions.

#### 7.12. Modalities of communication

#### 7.12.1. General

152. The DOE shall validate the corporate identity of all project participants and focal points included in the Modalities of Communication (MoC) statement, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories.

- 153. The DOE shall validate the identities referred to in paragraph 152 above through:
  - (a) Directly checking evidence of corporate and personal identities and other relevant documentation;
  - (b) Notarized documentation; or
  - (c) Written confirmation from the project participant that submits the MoC statement that all corporate and personal details, including specimen signatures, are valid and accurate.
- 154. When the DOE validates the identities by applying paragraph 153(c) above, the DOE shall ensure that the MoC statement is received from a project participant with whom the DOE has a contractual relationship.
- 155. When the DOE validates the identities by applying paragraph 153(c) above, the DOE shall ensure that the official who submits the MoC statement to the DOE and the official who signed the written confirmation (if a different person) are duly authorized to do so on behalf of the respective project participant.
- 156. If the DOE is unable to validate the requirements by applying paragraph 153(a), (b) or (c) above, the DOE may perform further validation activities in order to confirm that the corporate and personal details, employment status and specimen signatures included in the MoC statement are valid and accurate, and comply with the requirements in this section.
- 157. The DOE shall state that it has performed due diligence on the MoC statement in accordance with the requirements in this section.

#### 7.12.2. Modalities of the communication statement

- 158. The DOE shall validate that the MoC statement has been correctly completed and duly authorized.
- 159. The DOE shall check that:
  - (a) The valid version of the form "Modalities of Communication statement" (CDM-MOC-FORM) has been used;
  - (b) The information required as per the CDM-MOC-FORM, including its annex 1, is correctly completed;
  - (c) The project participants' authorized signatories signing the CDM-MOC-FORM correspond to the project participants' authorized signatories included in the CDM-MOC-FORM, annex 1.
- 160. The DOE shall state that the MoC statement was completed and duly authorized in accordance with the valid version of the form and the information required therein.

#### 7.13. Specific validation requirements for small-scale project activities

#### 7.13.1. General

161. The DOE shall determine whether the proposed small-scale CDM project activity that follows the CDM SSC M&Ps and other CDM rules and requirements for small-scale project activities applies only small-scale approved methodologies. However, for a proposed small-scale CDM project activity that is within the small-scale activity threshold but applies a large-scale approved methodology, the DOE shall determine whether this project activity follows the CDM M&Ps and other CDM rules and requirements for large-scale project activities.

#### 7.13.2. Project activity type and eligibility

- 162. The DOE shall determine whether:
  - (a) The proposed CDM project activity qualifies within the thresholds of the three possible types of small-scale project activities, as defined in the "CDM project standard for project activities";
  - (b) The proposed CDM project activity conforms to one or more of the approved small-scale methodologies applied in conjunction with the "Guideline: General guidelines for SSC CDM methodologies".
- 163. The DOE shall state its opinion on whether the proposed CDM project activity is within the thresholds for small-scale project activities.

#### 7.13.3. Bundling of project activities

- 164. The DOE shall determine whether the bundle of proposed small-scale CDM project activities is designed in accordance with the applicable requirements in the "CDM project standard for project activities" if the project participants bring together more than one proposed small-scale CDM project activity as a bundle.
- 165. A single DOE may validate the bundle of proposed small-scale CDM project activities.
- 166. The DOE shall assess the compliance with the applicable requirements in the "CDM project standard for project activities" by means of a document review, interview with relevant personnel and/or, where conducted in accordance with paragraph 30 or 31 above, an on-site inspection of the project sites.
- 167. The DOE shall:
  - State its opinion on the compliance of the bundle of proposed small-scale CDM project activities with the applicable requirements in the "CDM project standard for project activities";
  - (b) Describe the steps taken to assess the compliance.

#### 7.13.4. Debundling of project activity

- 168. The DOE shall determine whether the proposed small-scale CDM project activity is not a debundled component of a large-scale CDM project activity in accordance with the "Methodological tool: Assessment of debundling for SSC project activities".<sup>18</sup>
- 169. The DOE shall determine the proposed small-scale CDM project activity to be a debundled component of a large-scale CDM project activity if there is a registered small-scale CDM project activity or an application to register another proposed small-scale CDM project activity.
- 170. The DOE shall, where appropriate, take into account specific debundling requirements for Type I project activities and small-scale transport project activities.
- 171. The DOE shall state its conclusion and specific details on how it assessed whether the proposed small-scale CDM project activities are not a debundled component of a large-scale activity.

#### 7.13.5. Description of project activity

172. If the project participants included more than one component in the proposed small-scale CDM project activity, the DOE shall confirm that the project participants provided information on the small-scale project type (i.e. Type I, II and/or III), technologies/measures of the project activity, and application of the selected methodologies separately for each component.

#### 7.13.6. Application of methodologies and standardized baselines

#### 7.13.6.1. General

173. If the proposed small-scale CDM project activity contains more than one component, the DOE shall determine whether the PDD describes, for each component separately, how to undertake the ex post calculation of baseline, project and leakage GHG emissions as well as GHG emission reductions, and provides the ex ante calculation of them, in accordance with the "CDM project standard for project activities".

#### 7.13.6.2. Demonstration of additionality

- 174. The DOE shall determine whether the proposed small-scale CDM project activity is additional in accordance with CDM rules and requirements applicable for small-scale CDM project activities.
- 175. Paragraph 86 above applies to a proposed small-scale CDM project activity using an approved standardized baseline that standardizes additionality instead of paragraph 174 above.

<sup>&</sup>lt;sup>18</sup> If the proposed small-scale CDM project activity is deemed to be a debundled component but the total size of such an activity combined with the previous registered small-scale CDM project activity does not exceed the limits for small-scale project activities, then the project activity can qualify to use the CDM SSC M&Ps.

- 176. The DOE shall refer to the "Methodological tool: Demonstration of additionality of smallscale project activities" and the "Non-binding best practice examples to demonstrate additionality for SSC project activities" or any applicable additionality tool.
- 177. In the case of Type I project activities up to 5 MW (or an appropriate equivalent) that employ renewable energy as their primary technology, Type II energy efficiency project activities that aim to achieve energy savings at a scale of no more than 20 GWh per year (or an appropriate equivalent), and Type III project activities that aim to achieve emissions reductions at a scale of no more than 20 kt CO<sub>2</sub>e per year, instead of paragraphs 92–109 above, the DOE shall assess the relevant criteria to establish the automatic additionality for these project activities in accordance with the "Methodological tool: Demonstration of additionality of microscale project activities".
- 178. Paragraph 89 above applies to a proposed small-scale CDM project activity using an approved standardized baseline that standardizes additionality instead of paragraph 177 above.
- 179. The DOE shall describe all steps taken and sources of information used to cross-check the information contained in the PDD.

#### 7.13.6.3. Monitoring plan

- 180. The DOE shall:
  - (a) Describe the process undertaken to validate the accuracy and completeness of the monitoring plan for the proposed small-scale CDM project activity;
  - (b) State its opinion on the accuracy and completeness of the monitoring plan for the proposed small-scale CDM project activity.

#### 7.13.7. Environmental impacts

- 181. The following applies to a proposed small-scale CDM project activity instead of paragraphs 126 and 127 above: The DOE shall determine whether the project participants conducted an analysis of the environmental impacts of the proposed small-scale CDM project activity, if required by the host Party.
- 182. The following applies to a proposed small-scale CDM project activity instead of paragraph 129 above: The DOE shall state whether the project participants have undertaken an analysis of environmental impacts if required by the host Party.

# 7.14. Specific validation requirements for afforestation and reforestation project activities

#### 7.14.1. Description of project activity

183. The DOE shall assess the eligibility of the land and the approach to address nonpermanence described by the project participants in accordance with applicable specific requirements for A/R CDM project activities in the "CDM project standard for project activities".

#### 7.14.2. Project boundary

- 184. Paragraphs 185–188 below apply to a proposed A/R CDM project activity instead of paragraphs 69–74 above.
- 185. The DOE shall confirm whether the PDD contains a description of the project boundary that delineates discrete areas of land planned for the proposed A/R CDM project activity under the control of the project participants.<sup>19</sup>
- 186. The DOE shall, through document review and/or interviews, determine whether the project participants for all areas of land planned for the proposed A/R CDM project activity:
  - (a) Have already established control over afforestation or reforestation activities; or
  - (b) Have control over afforestation or reforestation.
- 187. The DOE shall confirm that the control has included at minimum the exclusive right, defined in a way acceptable under the legal system of the host Party, to perform the A/R activity with the aim of achieving net anthropogenic GHG removals by sinks. If the total number of documents to be reviewed and persons/entities to be interviewed is not less than 10, then the DOE may apply a sampling approach.
- 188. The DOE shall describe the documentation assessed and/or oral statements made by persons interviewed (if any) and determine their acceptability under the legal system of the host Party. If the DOE has applied a sampling approach, it shall also describe how many sites have been assessed and how these sites were selected.

#### 7.14.3. Eligibility of land

- 189. The DOE shall confirm that the land within the planned project boundary is eligible for a proposed A/R CDM project activity.
- 190. The DOE shall validate the above requirement based on a review of information that reliably discriminates between forest and non-forest land according to the particular thresholds adopted by the host Party<sup>20</sup> and, where conducted in accordance with paragraph 30 or 31 above, an on-site inspection.
- 191. The DOE shall describe how the validation of the eligibility of the land has been performed, by detailing the data sources assessed and, where conducted in accordance with paragraph 30 or 31 above, by describing its observations during the on-site inspection. The DOE shall state its opinion on whether the entire land within the project boundary is eligible for the proposed A/R CDM project activity.

#### 7.14.4. Addressing non-permanence

192. The DOE shall determine which approach to address non-permanence (i.e. tCERs or ICERs) is selected in accordance with the relevant provisions in the "CDM project standard for project activities".

<sup>&</sup>lt;sup>19</sup> The proposed A/R CDM project activity may contain more than one discrete area of land.

<sup>&</sup>lt;sup>20</sup> Exemplary sources are listed in the "A/R Methodological tool: Demonstration of eligibility of lands for A/R CDM project activities".

193. The DOE shall confirm whether the approach selected by the project participants to address non-permanence has been specified in the PDD.

#### 7.14.5. Application of methodologies and standardized baselines

#### 7.14.5.1. Carbon pools and greenhouse gases

- 194. The DOE shall determine whether the carbon pools to be considered in the proposed A/R CDM project activity were selected in accordance with the requirements of the applied methodologies and the applied standardized baselines.
- 195. The DOE shall confirm that information has been provided to justify the exclusion of certain carbon pools if the applied methodologies and the applied standardized baselines allow for such an option. In doing so, the DOE shall confirm that all documents referred to in the PDD are correctly quoted and interpreted. If relevant, the DOE shall cross-check the information provided in the PDD with other available information from public sources or local experts.
- 196. If the applied methodologies and the applied standardized baselines allow for the option to exclude certain pools and this option is selected by project participants, the DOE shall state its opinion on whether the selection of carbon pools complies with the applied methodologies and the applied standardized baselines, and whether the exclusion is justified.

#### 7.14.5.2. Baseline scenario

- 197. The following applies to a proposed A/R CDM project activity instead of paragraphs 75 and 80 above: The DOE shall determine whether the baseline identified for the proposed A/R CDM project activity is the scenario for each stratum of the proposed A/R CDM project activity, including the land use that would occur in the absence of the proposed A/R CDM project activity.
- 198. The following applies to a proposed A/R CDM project activity instead of paragraph 81 above: The DOE shall determine whether, drawing on its knowledge of the sector and/or advice from local experts, all applicable CDM rules and requirements have been taken into account in the identification of the baseline scenario for the proposed A/R CDM project activity, as well as relevant national and/or sectoral policies, regulations and circumstances, such as historical land use practices, without creating perverse incentives that may impact host Parties' contributions to the ultimate objective of the Convention in the following manner: national and/or sectoral land-use policies or regulations, which give comparative advantages to A/R activities and have been implemented since the adoption by the COP of the modalities and procedures for the CDM,<sup>21</sup> need not be taken into account in the baseline scenario (i.e. the baseline scenario could refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place).

#### 7.14.5.3. Estimation of net anthropogenic removals

199. The following applies to a proposed A/R CDM project activity instead of paragraph 110 above: The DOE shall determine whether the steps taken and the equations and parameters applied in the PDD to calculate baseline net GHG removals by sinks, actual

<sup>&</sup>lt;sup>21</sup> Decision 17/CP.7.

net GHG removals by sinks, leakage, and net anthropogenic GHG removals by sinks comply with the requirements of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents.

200. The following applies to a proposed A/R CDM project activity instead of paragraph 113(f) above: The DOE shall determine whether sampling efforts were undertaken in accordance with the applied methodologies and the other applied methodological regulatory documents if the project participants applied the sampling approach to determine data and parameters in accordance with the applied methodologies and the other applied methodologies and the other applied methodologies and the other applied methodologies.

#### 7.14.5.4. Demonstration of additionality

201. The DOE shall determine whether the proposed A/R CDM project activity is additional as demonstrated in the PDD.<sup>22</sup>

#### 7.14.5.5. Monitoring

- 202. The DOE shall determine whether the PDD describes the planned management activities, including harvesting cycles, and verifications such that a systematic coincidence of verification and peaks in carbon stocks would be avoided.
- 203. The DOE shall review the forest management plan and the monitoring plan for the proposed A/R CDM project activity to confirm that a systematic coincidence of verification and peaks in carbon stocks is avoided.
- 204. The DOE shall describe how the project participants have ensured that a systematic coincidence of verification and peaks in carbon stocks would be avoided.

#### 7.14.6. Crediting period type and duration

205. The DOE shall describe how it assesses the compliance on the crediting period type and duration in accordance with A/R project specific requirements related to the crediting period type and duration in the "CDM project standard for project activities".

#### 7.14.7. Environmental impacts

- 206. The DOE shall validate the documentation received from the project participants on the analysis of environmental impacts of the proposed A/R CDM project activity, including impacts on biodiversity and natural ecosystems, and impacts outside the project boundary of the proposed A/R CDM project activity.
- 207. The DOE shall confirm the above requirement by means of a document review and/or using local official sources and expertise.
- 208. If the above-mentioned analysis leads to the conclusion that a negative impact that may be considered significant by the project participants or the host Party has been detected,

<sup>&</sup>lt;sup>22</sup> For proposed A/R CDM project activities, "An afforestation or reforestation project activity under the CDM is additional if the actual net greenhouse gas removals by sinks are increased above the sum of the changes in carbon stocks in the carbon pools within the project boundary that would have occurred in the absence of the registered CDM afforestation or reforestation project activity" (see decision 5/CMP.1, annex, paragraph 18).

then the DOE shall determine whether an environmental impact assessment has been undertaken in accordance with relevant host Party regulations, and the outcome of such impact assessment is summarized in the PDD.

- 209. The DOE shall state whether the project participants have undertaken an analysis of environmental impacts and, if considered significant by the project participants or the host Party, a socio-economic impact assessment and/or an environmental impact assessment in accordance with relevant host Party regulations.
- 210. The DOE shall also state whether the outcome of such impact assessment has been summarized in the PDD and whether a description of the planned monitoring and remedial measures to address the negative impacts has been included in the PDD.

#### 7.14.8. Socio-economic impacts

- 211. The DOE shall validate the documentation received from the project participants on the analysis of the major socio-economic impacts of the proposed A/R CDM project activity, including impacts outside the project boundary of the proposed A/R CDM project activity.
- 212. The DOE shall confirm the above requirement by means of a document review and/or using local official sources and expertise.
- 213. If the above-mentioned analysis leads to the conclusion that a negative impact that may be considered significant by the project participants or the host Party has been detected, then the DOE shall determine whether a socio-economic impact assessment has been undertaken in accordance with relevant host Party regulations, and the outcome of such impact assessment is summarized in the PDD.
- 214. The DOE shall state whether the project participants have undertaken an analysis of the socio-economic impacts and, if considered significant by the project participants or the host Party, a socio-economic impact assessment in accordance with relevant host Party regulations.
- 215. The DOE shall also state whether the outcome of such impact assessment has been summarized in the PDD and whether a description of the planned monitoring and remedial measures to address the negative impacts has been included in the PDD.

## 7.15. Specific validation requirements for small-scale afforestation and reforestation project activities

- 216. The DOE shall determine whether the proposed small-scale A/R CDM project activity:
  - (a) Complies with the definition and limit for the small-scale A/R project activities;<sup>23</sup>
  - (b) Complies with one of the types of small-scale A/R project activities defined in appendix B of the CDM SSC A/R M&Ps and qualifies to apply one of the approved simplified methodologies for small-scale A/R project activities;
  - (c) Is not a debundled component of a large-scale A/R CDM project activity in accordance with the rules defined in appendix C of the CDM SSC A/R M&Ps;

<sup>&</sup>lt;sup>23</sup> See decision 9/CMP.3, which revised decision 5/CMP.1, annex, paragraph 1 (i).

(d) Has been developed or implemented by low-income communities and individuals as confirmed by the host Party.<sup>24</sup>

## 7.16. Specific validation requirements for carbon dioxide capture and storage project activities

#### 7.16.1. General

217. The DOE shall determine whether specific requirements as defined in the CDM CCS M&Ps have been followed for the proposed CCS CDM project activity.<sup>25</sup>

#### 7.16.2. Description of project activity

218. The DOE shall assess the description of the proposed CCS CDM project activity described by the project participants in accordance with applicable specific requirements for CCS CDM project activities in the "CDM project standard for project activities".

#### 7.16.3. Host Party participation requirements

- 219. The DOE shall determine whether the participation requirements as set out in the section "Participation requirements of host Party for CCS project activities" of the "CDM project cycle procedure for project activities" are satisfied.
- 220. The DOE shall determine whether the host Party has:
  - (a) Submitted the expression of its agreement to the UNFCCC secretariat to allow the implementation of CCS project activities on its territory;
  - (b) Established laws and/or regulations which meet the requirements set out in the section "Host Party participation requirements of host Party for CCS project activities" of the "CDM project cycle procedure for project activities".
- 221. The DOE shall describe how the host Party's laws and/or regulations meet the requirements set out in the section "Laws and regulations of host Party for CCS project activities" of the "CDM project cycle procedure for project activities".
- 222. The DOE shall determine whether the project participants have received written confirmation by the DNA of the host Party of the following:
  - (a) That the right to store carbon dioxide in, and gain access to, the proposed geological storage site has been conferred to the relevant project participants;
  - (b) That the host Party agrees to the financial provision, in accordance with the section "Requirements for financial provision" of the "CDM project standard for project activities", described in the PDD;
  - (c) That the host Party accepts the allocation of liability as proposed in the PDD and the transfer of liability referred to in the section "Liability" of the "CDM project standard for project activities";

<sup>&</sup>lt;sup>24</sup> See decision 5/CMP.1, annex paragraph 1 (i).

<sup>&</sup>lt;sup>25</sup> See annex to decision 10/CMP.7.

- (d) Whether the host Party accepts the obligation to address a net reversal of storage in the situation referred to in the section "Addressing non-permanence in CCS project activities" of the "CDM project cycle procedure for project activities".
- 223. The DOE shall confirm that the approval of participation has been issued from the relevant DNA and covers all the points mentioned in paragraph 220 above. If the DOE is in doubt, it shall verify with the DNA that the approval is valid for the proposed CDM project participants.
- 224. The DOE shall, for each participant:
  - (a) Indicate whether the participation has been authorized by a host Party mentioning all the conditions as specified in the paragraph 220 above;
  - (b) Describe the means of validation employed to support the conclusions.

#### 7.16.4. Selection and characterization of the geological storage site

- 225. The DOE shall determine whether:
  - (a) The geological storage site has been characterized and selected in accordance with the section "Selection and characterization of the geological storage site" of the "CDM project standard for project activities";
  - (b) The conditions set out in the section "Selection and characterization of the geological storage site" of the "CDM project standard for project activities" have been fulfilled.
- 226. The DOE shall determine whether:
  - (a) The selection and characterization of the geological storage site fulfils the requirements set out in the section "Selection and characterization of the geological storage site" of the "CDM project standard for project activities";
  - (b) All the steps mentioned in the section "Selection and characterization of the geological storage site" of the "CDM project standard for project activities" have been performed for the project activity;
  - (c) Relevant information is used for the selection and characterization of the geological storage site, in accordance with the section "Selection and characterization of the geological storage site" of the "CDM project standard for project activities".
- 227. The DOE shall describe all the steps taken and sources of information used to validate the PDD. The DOE shall describe how it has determined that the evidence assessed is credible, where appropriate.
- 228. The DOE shall also describe how the requirements set out in the section "Selection and characterization of the geological storage site" of the "CDM project standard for project activities" have been fulfilled.

#### 7.16.5. Project boundary

- 229. The DOE shall confirm that the PDD description of the project boundary of a proposed CCS CDM project activity includes all above-ground components, including, where applicable, the following:
  - (a) The installation where the carbon dioxide is captured;
  - (b) Any treatment facilities;
  - (c) Transportation equipment, including pipelines and booster stations along a pipeline, or offloading facilities in the case of transportation by ship, rail or road tanker;
  - (d) Any reception facilities or holding tanks at the injection site;
  - (e) The injection facility;
  - (f) Subsurface components, including the geological storage site and all potential sources of seepage, as determined during the characterization and selection of the geological storage site.
- 230. The DOE shall also confirm that the project boundary of a proposed CCS CDM project activity also encompasses the vertical and lateral limits of the carbon dioxide geological storage site that are expected when the carbon dioxide plume stabilizes over the long term during the closure phase and the post-closure phase.
- 231. The DOE shall confirm the project boundary based on the documented evidence and, where conducted in accordance with paragraph 30 or 31 above, shall corroborate it by an on-site inspection.
- 232. The DOE shall confirm that the project boundary covers all the relevant elements in accordance with the section "Project boundary" of the "CDM project standard for project activities".
- 233. The DOE shall describe how the validation of the project boundary has been performed by detailing the documentation assessed (e.g. an engineering design report) and, where conducted in accordance with paragraph 30 or 31 above, by describing its observations during the on-site inspection undertaken (i.e. observations of the physical site or equipment used in the process).

#### 7.16.6. Risk and safety assessment

- 234. The DOE shall determine whether the risk and safety assessment has been carried out in accordance with:
  - (a) The laws and regulations of the host Party, as applicable;
  - (b) The provisions set out in the section "Risk and safety assessment" of the "CDM project standard for project activities".
- 235. The DOE shall determine whether:
  - (a) The risk and safety assessment has been carried out in accordance with the laws and regulations of the host Party;

- (b) All the requirements set out in the section "Risk and safety assessment" of the "CDM project standard for project activities" have been met for the proposed CCS CDM project activity;
- (c) The five steps for assessing the potential risk of the proposed CCS CDM project activity, as set out in the section "Risk and safety assessment" of the "CDM project standard for project activities", have been followed.
- 236. The DOE shall indicate whether the project participants have undertaken a risk and safety assessment in accordance with the laws and regulations as required by the host Party.
- 237. The DOE shall describe how the requirements set out in the section "Risk and safety assessment" of the "CDM project standard for project activities" have been fulfilled.

#### 7.16.7. Monitoring

- 238. The following applies instead of paragraphs on general requirements (i.e. not related to data and parameters monitored and other elements of monitoring plan) in sub-section "Monitoring plan" in the section "Design of project activity" of the "CDM project standard for project activities":
- 239. The DOE shall confirm that the provisions in the PDD for monitoring, including the monitoring plan, are in accordance with the applied methodologies, the other applied methodological regulatory documents, the requirements set out in the section "Monitoring" of the "CDM project standard for project activities" and all other applicable CDM rules and requirements.
- 240. The DOE shall apply a two-step process to meet the requirement mentioned in paragraph 239 above:
  - (a) In order to assess the compliance of the monitoring plan with the CDM CCS M&Ps, the DOE shall:
    - Identify the list of parameters, information, provisions for history matching and numerical models used to characterize the geological storage site required as set out in the section "Monitoring" of the "CDM project standard for project activities" by means of a document review;
    - (ii) Confirm that the description of the monitoring plan contains all necessary parameters, information, provisions for history matching and numerical models used to characterize the geological storage site, and that the means of monitoring described in the plan complies with the requirements in the section "Monitoring" of the "CDM project standard for project activities";
  - (b) In order to assess the implementation of the plan the DOE shall, by means of reviewing the documented procedure, interviewing relevant personnel, reviewing project plans and, where conducted in accordance with paragraph 30 or 31 above, any on-site inspection of the proposed project activity site, determine whether:
    - (i) The monitoring arrangements described in the monitoring plan are feasible within the project design;
    - (ii) The means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are

sufficient to ensure that the monitoring plan is in accordance with the section "Monitoring" of the "CDM project standard for project activities" and in all other CDM rules and requirements and the parameters can be reported ex post and verified.

- 241. The DOE shall use official sources and its local and sectoral expertise to confirm that the project participants have provided the description and analysis of the environmental conditions in the area of geological storage site prior to any storage of carbon dioxide in accordance with paragraph 240 above.
- 242. The DOE shall:
  - (a) State its opinion on the compliance of the described monitoring plan with the requirements in the section "Monitoring" of the "CDM project standard for project activities";
  - (b) Describe the steps taken to assess whether the monitoring arrangements described in the monitoring plan are feasible within the project design;
  - (c) State its opinion on the project participants' ability to implement the described monitoring plan;
  - (d) State its opinion on the description and analysis of environmental conditions in the area of the geological storage site prior to any storage of carbon dioxide.

#### 7.16.8. Requirements for financial provision

- 243. The DOE shall determine whether financial provisions have been put in place by the project participants in accordance with the requirements set out in the section "Requirements for financial provision" of the "CDM project standard for project activities".
- 244. The DOE shall confirm that:
  - (a) The project participants have established financial provisions in accordance with the requirements mentioned above;
  - (b) The financial provision is sufficient to cover all aspects defined in the section "Requirements for financial provision" of the "CDM project standard for project activities";
  - (c) The type and amount of financial provision is described in the PDD;
  - (d) The financial provision shall, in accordance with the laws and regulations of the host Party, be transferable to the host Party upon fulfilment of all obligations of the project participants in accordance with the CCS-related requirements in the "CDM project standard for project activities" and the laws and regulations of the host Party, or upon insolvency of the project participants.
- 245. The DOE shall:
  - (a) Describe the steps taken to assess the relevant information contained in the PDD against the criteria set out in the section "Requirements for financial provision" of the "CDM project standard for project activities";

- (b) Describe how the financial provision is sufficient to cover all aspects defined in the section "Requirements for financial provision" of the "CDM project standard for project activities";
- (c) Describe the type and amount of the financial provision;
- (d) Describe the sources of information used to confirm how the financial provision shall be transferred to the host Party, upon fulfilment of all obligations of the project participants in accordance with CCS-related requirements in the "CDM project standard for project activities" and the laws and regulations of the host Party, or upon insolvency of the project participants;
- (e) Confirm that the financial provision is guaranteed to be transferable to the host Party upon insolvency of the project participant(s).

#### 7.16.9. Liability

- 246. The DOE shall determine whether the allocation and transfer of liability have been agreed in accordance with:
  - (a) The laws and regulations of the host Party, as applicable; and
  - (b) The requirements set out in the section "Liability" of the "CDM project standard for project activities".
- 247. The DOE shall determine whether, in accordance with the requirements mentioned above:
  - (a) The allocation and transfer of liability has been agreed;
  - (b) The proposed allocation and transfer of liability is feasible and implementable.
- 248. The DOE shall:
  - (a) Describe how the proposed allocation and transfer of liability complies with the requirements mentioned in the section "Liability" in the "CDM project standard for project activities";
  - (b) Describe how it assessed whether the allocation and transfer of liability is feasible and implementable;
  - (c) Confirm that the obligation of liability shall reside with the project participant(s) during the operational phase and any time thereafter until a transfer of liability to the host Party has been effected.

#### 7.16.10. Environmental and socio-economic impact assessments

- 249. The DOE shall confirm that the environmental and socio-economic impact assessments have been carried out in accordance with:
  - (a) The laws and regulations of the host Party, as applicable;
  - (b) The provisions set out in the section "Environmental and socio-economic impact assessments" of the "CDM project standard for project activities".

- 250. The DOE shall determine whether the results of the assessments referred to in paragraphs 234 and 249 above confirm the technical and environmental viability of the proposed CCS CDM project activity.
- 251. The DOE shall determine whether:
  - (a) The environmental and socio-economic impact assessments have been carried out as per the requirements mentioned in the paragraphs above;
  - (b) The results of the risk and safety assessment and environmental and socioeconomic impact assessments confirm the technical and environmental viability of the proposed CCS CDM project activity.
- 252. The DOE shall:
  - (a) Describe how the environmental and socio-economic impact assessments comply with the laws and regulations of the host Party;
  - (b) Describe how it has assessed that the requirements set out in the section "Environmental and socio-economic impact assessments" of the "CDM project standard for project activities" are met for the proposed CCS CDM project activity;
  - (c) Describe how it has validated the compliance of the detailed description of the planned monitoring and remedial measures to address any environmental and socio-economic impacts identified in accordance with the procedures as required by the host Party;
  - (d) State whether the results of the assessments confirm the technical and environmental viability of the proposed CCS CDM project activity.

#### 7.16.11. Verification and certification

253. The initial verification and certification of a CCS CDM project activity may be undertaken at a time selected by the project participants. The DOE shall submit subsequent verification and certification reports to the Board not later than five years after the end of the previous verification period.

#### 7.17. Global stakeholder consultation

- 254. The DOE shall determine whether authentic and relevant comments in the global stakeholder consultation were taken into due account in the PDD of the proposed CDM project activity.
- 255. The DOE shall acknowledge receipt of all submitted comments on the PDD of the proposed CDM project activity.
- 256. In case of doubt, the DOE shall determine the authenticity of the name and contact details of the individual or organization on whose behalf the comments have been submitted.
- 257. Once the DOE has determined which submitted comments are authentic, it shall contact the secretariat to make them publicly available.

- 258. The DOE shall determine whether the authentic comments are relevant to the following defined scope of comments:
  - (a) The comment discusses issues specific to the proposed CDM project activity;
  - (b) The comment discusses issues related to the compliance with the relevant CDM rules and regulations.
- 259. The DOE shall request the project participants to address all the comments that it determined to be authentic and relevant in accordance with paragraphs 256 and 258 above.
- 260. If a comment indicates that the proposed CDM project activity does not comply with the CDM rules and requirements but are not substantiated, the DOE shall request a clarification from the entity that provided the comment. Upon receiving the clarification, the DOE shall determine whether a further clarification request is required. If no additional information or substantiation is provided within 14 days of the request for clarification being made, the DOE shall request the project participants to address the comments as originally provided.
- 261. The DOE shall determine whether changes to the PDD have been made after the publication of the PDD for global stakeholder consultation.
- 262. A DOE shall make the revised PDD publicly available for global stakeholder consultation in accordance with the "CDM project cycle procedure for project activities" if it determines that:
  - (a) The project participants that have a contractual relationship with the DOE have been replaced;
  - (b) Significant changes have been made to the project design; or
  - (c) The selected methodologies, the selected standardized baselines and/or the combination thereof have been changed by the project participants, unless the change only involves the removal and no addition of methodologies and/or standardized baselines, and the removal of the methodologies and/or the standardized baselines does not affect the physical design of, and the end-use services provided by, the proposed CDM project activity.
- 263. If the DOE determines that significant changes have been made to the project design, the DOE may seek guidance from the Board on whether the revised PDD shall be published for global stakeholder consultation in accordance with the "CDM project cycle procedure for project activities".
- 264. The DOE shall report the details of the actions taken to:
  - (a) Authenticate the information on the submitters of the comments in case of doubt;
  - (b) Determine the relevance of the authentic comments to the defined scope of comments;
  - (c) Take due account of the authentic and relevant comments, including dates of receipt, responses by the project participants and responses by the DOE.

265. If the DOE identifies changes to the PDD after the publication of them for global stakeholder consultation, the DOE shall state its opinion on whether the publication of the revised PDD for global stakeholder consultation was necessary in accordance with paragraph 262 above.

#### 7.18. Validation status and outcomes, opinion and report

#### 7.18.1. Validation status and outcomes

266. The DOE shall provide an update of the status of its validation activity in accordance with the "CDM project cycle procedure for project activities".

#### 7.18.2. Validation opinion

- 267. The DOE shall include a statement on the likelihood of the proposed CDM project activity achieving the anticipated GHG emission reductions or net anthropogenic GHG removals stated in the PDD.
- 268. The DOE shall notify the project participants of the validation outcome. The notification to the project participants shall include:
  - (a) A confirmation of validation and date of submission of the validation report as part of the request for registration of the proposed CDM project activity to the Board; or
  - (b) An explanation of reasons for non-acceptance if the proposed CDM project activity, as documented, is determined not to fulfil the requirements for validation.
- 269. The DOE shall provide either:
  - (a) A positive validation opinion in its validation report if the DOE determines that the proposed CDM project activity complies with the applicable CDM rules and requirements; or
  - (b) A negative validation opinion in its validation report explaining the reason for its opinion if the DOE determines that the proposed CDM project activity does not fulfil the applicable CDM rules and requirements.<sup>26</sup>
- 270. The DOE shall include the following in its opinion:
  - (a) A summary of the validation method and process used and the validation criteria applied;
  - (b) A description of project components or issues not covered by the validation process;
  - (c) A summary of the validation conclusions;
  - (d) A statement on the validation of the expected GHG emission reductions or net anthropogenic GHG removals;

<sup>&</sup>lt;sup>26</sup> This does not cover the case in which the project participants failed to inform the secretariat, or informed it but not within the required time frame, of the progress of the proposed CDM project activity every subsequent two years after the initial notification of prior consideration of the CDM in accordance with the "CDM project cycle procedure".

(e) A statement on whether the proposed CDM project activity meets the applicable CDM rules and requirements.

#### 7.18.3. Validation report

- 271. The DOE shall report the results of its assessment in the validation report.
- 272. In its validation report, the DOE shall provide the following:
  - (a) A summary of the validation process and its conclusions;
  - (b) Results of the dialogue between the DOE and the project participants, as well as any adjustments made to the project design following the stakeholder consultation. It shall reflect the responses to CARs and CLs, the identification of FARs, and discussions on and revisions to the project documentation;
  - (c) All its applied approaches, findings and conclusions on the requirements set out in sections 7.2–7.17 above;
  - (d) A validation opinion;
  - (e) A list of interviewees, documents reviewed, sampling approaches used by the DOE and, where conducted in accordance with paragraph 30 or 31 above, outline of onsite inspections. Where the DOE applied a sampling approach to the on-site inspection, the DOE shall include a description of how the sample size was determined and how the field check was carried out;
  - (f) Details of the validation team, technical experts and internal technical reviewers involved, together with their roles in the validation activity and, where conducted in accordance with paragraph 30 or 31 above, details of who conducted the on-site inspection;
  - (g) Information on quality control within the team and in the validation process;
  - (h) Appointment certificates or curricula vitae of the DOE's validation team members, technical experts and internal technical reviewers for the proposed CDM project activity.
- 273. If the DNA has forwarded complaints from local stakeholders to the DOE during the validation in accordance with paragraph 134 above, the DOE shall, once the request for registration is published on the UNFCCC CDM website, inform the DNA and the complainants of the publication of the validation report.

### 8. Validation of post-registration changes

#### 8.1. General validation requirements

- 274. The DOE contracted by the project participants to validate the post-registration changes referred to in sections 8.2–8.3 below shall be accredited for the validation function and in the sectoral scope(s) relevant to the CDM project activity.
- 275. The DOE shall apply the requirements in section 7.1.3 above mutatis mutandis to validate the information provided by the project participants.

- 276. If the DOE determines that the proposed or actual post-registration changes to the registered CDM project activity comply with the relevant CDM rules and requirements, the DOE shall issue a positive validation opinion and submit a request for approval of changes either prior to or together with the submission of the request for issuance of CERs in accordance with relevant requirements in the "CDM project cycle procedure for project activities".
- 277. If the DOE determines that the proposed or actual post-registration changes to the registered CDM project activity do not comply with the relevant CDM rules and requirements, the DOE shall issue a negative validation opinion.
- 278. The DOE shall determine whether the revised PDD reflecting the post-registration changes were prepared in both track-change and clean versions, and were completed using the valid version of the applicable PDD form.
- 279. If the project participants used a later valid version of the PDD form for preparing the revised PDD than the version used for the registered PDD, the DOE shall determine whether the information transferred to the later valid version of the form is materially the same as that in the registered PDD.
- 280. In its validation report for the post-registration changes, the DOE shall:
  - (a) Provide all its applied approaches, findings and conclusion on:
    - (i) The compliance of the revised PDD with the valid version of the applicable form(s) and instructions therein, as applicable;
    - (ii) Whether the information transferred to the later valid version of the PDD is materially the same as that in the registered PDD;
    - (iii) The requirements relevant to the proposed or actual post-registration changes in sections 8.2–8.3 below;
  - (b) Report on all items listed in paragraph 272 above except paragraph 272(c) above.

# 8.2. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents

- 281. The DOE shall determine whether there is a temporary deviation from the monitoring plan in the registered PDD (hereinafter referred to as the registered monitoring plan), the applied methodologies, the applied standardized baselines, or the other applied methodological regulatory documents and, if there is, determine whether the deviation complies with the relevant requirements in the "CDM project standard for project activities".
- 282. If the DOE identifies that the project participants have deviated from the registered monitoring plan, the applied methodologies, the applied standardized baselines or the other applied methodological regulatory documents, the DOE shall determine whether the project participants have proposed alternative monitoring arrangements or applied the most conservative values approach referred to in the "CDM project standard for project activities" for the non-conforming monitoring period.
- 283. If the DOE determines that the project participants have proposed alternative monitoring arrangements, it shall determine whether the arrangements apply conservative

assumptions or discount factors to the calculations to the extent required to ensure that GHG emission reductions or net anthropogenic GHG removals will not be overestimated as a result of the deviation.

- 284. If the DOE determines that the project participants have applied the most conservative values approach referred to in the "CDM project standard for project activities" for the non-conforming monitoring period, it does not need to seek approval from the Board of the deviation.
- 285. For cases where a deviation from the registered monitoring plan, the applied methodologies or the applied standardized baselines may be applicable to the monitoring period under verification and part of the subsequent monitoring period, the DOE shall determine the exact period to which the deviation applies.
- 286. The DOE shall state its opinion on whether the deviation complies with the relevant requirements in the "CDM project standard for project activities".

#### 8.3. Permanent changes

#### 8.3.1. Corrections

- 287. The DOE shall determine that any corrections to project information or parameters fixed at validation, as described in the registered PDD, made by project participants in a revised PDD comply with the relevant requirements in the "CDM project standard for project activities".
- 288. If the DOE identifies that the project participants have made corrections to project information or parameters fixed at validation, the DOE shall determine whether:
  - (a) The corrected information is an accurate reflection of actual project information; and/or
  - (b) The corrected parameters are in accordance with the applied methodologies, the registered monitoring plan, the applied standardized baselines and the other applied methodological regulatory documents.
- 289. The DOE shall state how the corrected information accurately reflects the actual project information and/or how the corrected parameters reflect the application of the applied methodologies, the registered monitoring plan, the applied standardized baselines and the other applied methodological regulatory documents.

#### 8.3.2. Changes to the start date of the crediting period

- 290. If the project participants wish to change the start date of the crediting period of the registered CDM project activity, the DOE shall determine whether the proposed change complies with the relevant requirements in the "CDM project standard for project activities".
- 291. The DOE shall state its opinion on whether the change complies with the relevant requirements related to the changes to the start date of the crediting period in the "CDM project standard for project activities".

#### 8.3.3. Inclusion of monitoring plan

- 292. The DOE shall determine whether there is a monitoring plan that has been proposed to be included to the registered PDD for which the delayed submission of the monitoring plan was chosen by the project participants at the time of the registration of the CDM project activity, and, if there is, determine whether the monitoring plan complies with the relevant requirements in the "CDM project standard for project activities".
- 293. The DOE shall confirm that the registered PDD does not contain the information related to the monitoring plan and states the decision of the project participants to delay the submission of the monitoring plan.
- 294. The DOE shall follow the relevant requirements related to validation of the monitoring plan in section 7.6.6.2 above to validate the monitoring plan in the revised PDD.
- 295. The DOE shall follow the relevant requirements related to validation of the monitoring plan in section 7.6.6.2 above to report on the validation of the monitoring plan in the revised PDD.

# 8.3.4. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other applied methodological regulatory documents

- 296. The DOE shall determine whether there are permanent changes to the registered monitoring plan, or whether the monitoring permanently deviates from the applied methodologies, the applied standardized baselines, or the other applied methodological regulatory documents and, if there are, determine whether the permanent changes or deviation comply with the relevant requirements in the "CDM project standard for project activities".
- 297. The DOE shall determine whether the permanent changes to the registered monitoring plan described in the revised PDD are in compliance with the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents, and do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan.
- 298. The DOE shall determine whether the permanent changes to the registered monitoring plan or the permanent deviation of the monitoring from the applied methodologies, standardized baselines, or the other applied methodological regulatory documents are likely to lead to a reduction in the accuracy of the calculation of GHG emission reductions or net anthropogenic GHG removals. If the DOE considers that the permanent changes or the permanent deviation will lead to a reduction in the accuracy of the calculation, the DOE shall request the project participants to apply conservative assumptions or discount factors to the calculations to the extent required to ensure that GHG emission reductions or net anthropogenic GHG removals will not be over-estimated as a result of the permanent change or the permanent deviation.
- 299. The DOE shall state its opinion on whether the permanent changes or the permanent deviation comply with the relevant requirements in the "CDM project standard for project activities".

#### 8.3.5. Changes to the project design

- 300. The DOE shall determine whether there are proposed or actual changes to the project design of a registered CDM project activity, and, if there are, determine whether the changes comply with the relevant requirements in the "CDM project standard for project activities".
- 301. In case of actual changes, the DOE shall, by means of an on-site inspection (where conducted in accordance with paragraph 30 or 31 above) and review of the submitted revised PDD by the project participants that describes the nature and extent of the actual changes, determine whether this description accurately reflects the implementation, operation and monitoring of the modified CDM project activity.
- 302. By means of an on-site inspection or other means of validation carried out in accordance with paragraph 30 or 31 above, the DOE shall assess the impacts of the actual changes on the monitoring plan, the level of accuracy of the monitoring activity, the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents.
- 303. The DOE shall, by means of reviewing the revised PDD against applicable additionality and methodological requirements, determine whether the proposed or actual changes would adversely affect the conclusions of the validation report of the registered PDD with regard to:
  - (a) The additionality of the registered CDM project activity;
  - (b) The scale of the registered CDM project activity;
  - (c) The applicability and application of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents with which the CDM project activity has been registered;
  - (d) The compliance of the monitoring plan with the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents.
- 304. If the proposed or actual changes affect the additionality of the registered CDM project activity, the DOE shall confirm that:
  - (a) If investment analysis was used to demonstrate additionality, the project participants have only modified the key parameters in the original spreadsheet calculations affected by the proposed or actual changes to the project activity;
  - (b) If only barriers were claimed to demonstrate additionality, the project participants have demonstrated that the barriers are still valid under the new circumstances.
- 305. Notwithstanding of paragraph 304 above, if the registered CDM project activity uses an approved standardized baseline that standardizes additionality and if the proposed or actual changes affect the additionality of the project activity, the DOE shall confirm that the project activity complies with the positive list of the applied standardized baseline in the registered PDD.

- 306. The DOE shall assess whether the revised PDD complies with all the requirements of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents.
- 307. If the applied methodologies and/or standardized baselines have been updated to a later valid version of them, or changed to other methodologies or standardized baselines, the DOE shall confirm that the revised PDD meets all requirements of the updated/changed methodologies, including the standards, methodological tools and guidelines applied in accordance with the updated/changed methodologies, and/or the updated/changed standardized baselines.
- 308. The DOE shall state its opinion on whether the proposed or actual changes comply with the relevant requirements in the "CDM project standard for project activities" related to changes to the project design of a registered CDM project activity.
- 309. The DOE shall state its opinion on:
  - (a) A description of the proposed or actual changes as compared to the description in the registered PDD;
  - (b) An assessment on when the changes occurred, reasons for these changes taking place, whether the changes would have been known prior to the registration of the CDM project activity, how the changes would impact on the overall operation/ability of the CDM project activity to deliver emission reductions or net anthopogenic removals as stated in the PDD, and whether the revised estimation of emission reductions due to the change takes into account the applicable limits in accordance with the "CDM project standard for project activities";
  - (c) An assessment regarding whether the changes would adversely affect the conclusions of the validation report of the registered PDD with regard to:
    - (i) The applicability and application of (1) the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents with which the project activity has been registered; (2) the later valid version of the applied methodologies, the applied standardized baselines and/or the other applied methodological regulatory documents; or (3) other methodologies and/or standardized baselines that the registered CDM project activity has updated/changed to;
    - (ii) The project boundary and any associated leakages due to the changes;
    - (iii) The compliance of the monitoring plan with the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents;
    - (iv) The level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan;
    - (v) The additionality of the registered CDM project activity;
    - (vi) The scale of the registered CDM project activity.

- 310. In validating the revised PDD containing the proposed or actual changes, and in preparing the opinion, the DOE shall include information on how:
  - (a) The proposed revisions ensure that the level of accuracy and completeness<sup>27</sup> in the monitoring and verification process is not reduced as a result of the revision. The DOE shall, using objective evidence, assess the accuracy and completeness of each proposed revision to the registered monitoring plan, including the frequency of measurements, the quality of monitoring equipment (e.g. calibration requirements, the quality assurance and quality control procedures);
  - (b) The proposed revisions comply with all requirements of:
    - (i) The applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents; or
    - (ii) The updated/changed method ologies including the standards, methodological tools and guidelines applied in accordance with the updated/changed methodologies, and/or the updated/changed standardized baselines if the applied methodologies and/or standardized baselines have been updated to a later valid version of them or changed to other methodologies or standardized baselines;
  - (c) The findings of previous verification and certification reports, if any, have been taken into account.

### 9. Verification of implementation and monitoring

#### 9.1. General verification requirements

#### 9.1.1. Objective of verification

311. The DOE shall conduct a thorough and independent assessment of the implementation and the reported GHG emission reductions or net anthropogenic GHG removals by a registered CDM project activity against the applicable CDM rules and requirements.

#### 9.1.2. Approach of verification

#### 9.1.2.1. General

- 312. In carrying out its verification work, the DOE shall determine whether the registered CDM project activity complies with the requirements in paragraph 62 of the CDM M&Ps.
- 313. If the DOE has performed a validation activity (including for renewal of crediting period) for the registered CDM project activity and wishes to perform verification for the same project activity, it shall obtain authorization to do so from the Board in accordance with the

<sup>&</sup>lt;sup>27</sup> Completeness refers to inclusion of all relevant information for assessment of GHG emissions reductions and the information supporting the methods applied as required. For example, if the DOE identifies an on-site generator for emergency use which was not included in the registered monitoring plan during the verification process, the monitoring of fuel consumption of this generator should be included in the monitoring plan via this procedure.

"CDM project cycle procedure for project activities". However, the same DOE may perform verification without obtaining authorization from the Board to do so for:

- (a) A registered small-scale CDM project activity and a registered small-scale A/R CDM project activity for which it has performed the validation activity;
- (b) Any registered CDM project activity for which it has performed the validation of post-registration changes.
- 314. The DOE shall make publicly available the monitoring report received from the project participants in accordance with the "CDM project cycle procedure for project activities" except when the host Party's DNA withdraws its approval of the registered CDM project activities and/or its authorization of project participants in accordance with the "Procedure: Process for dealing with letters from DNAs that withdraw approval/authorization".
- 315. The DOE shall ensure that only verification activities undertaken after the publication of the monitoring report on the UNFCCC CDM website shall be used as a basis for the DOE to conclude its verification and submit a request for issuance of CERs to the Board.<sup>28</sup>
- 316. The DOE shall assess both quantitative and qualitative information on GHG emission reductions or net anthropogenic GHG removals provided in the project documentation.<sup>29</sup>
- 317. The DOE shall assess and determine whether the implementation and operation of the registered CDM project activity, and the steps taken to report GHG emission reductions or net anthropogenic GHG removals comply with the relevant modalities and procedure for the CDM and the relevant guidance provided by the Board. This assessment shall involve a review of relevant documentation as well as, where conducted in accordance with paragraph 339 or 340 below, an on-site inspection(s). For an on-site inspection(s), the DOE may apply a sampling approach in accordance with the "Standard: Sampling and surveys for CDM project activities and programme of activities".
- 318. The DOE shall assess whether the data collection system meets the requirements of the registered monitoring plan as per the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents.
- 319. In addition to the monitoring documentation, the DOE shall review:
  - (a) The registered PDD, including the registered monitoring plan and/or the changes from the registered PDD, and the corresponding validation opinion;
  - (b) The validation report;
  - (c) Previous verification and certification reports, if any;
  - (d) The applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents;
  - (e) The monitoring results of sustainable development co-benefits of the registered CDM project activity, if requested to verify this by the project participants;

<sup>&</sup>lt;sup>28</sup> See EB 60 report, paragraph 101.

<sup>&</sup>lt;sup>29</sup> Quantitative information comprises the reported numbers in the monitoring report. Qualitative information comprises information on internal management controls, calculation procedures, procedures for transfer of data, frequency of the monitoring reports, and review and internal audit of calculations.

- (f) Any other information and references relevant to the GHG emission reductions or net anthropogenic GHG removals by the registered CDM project activity (e.g. IPCC reports, data on electricity generation in the national grid or laboratory analysis and national regulations).
- 320. In addition to reviewing the monitoring documentation, the DOE shall determine whether the project participants have addressed the FARs identified during validation or previous verification(s).

#### 9.1.2.2. Quality of evidence

- 321. When verifying the reported GHG emission reductions or net anthropogenic GHG removals, the DOE shall confirm that there is an audit trail that contains the evidence and records that validate or invalidate the stated figures. It shall include the source documents that form the basis for assumptions and other information underlying the GHG data.
- 322. When assessing the audit trail, the DOE shall:
  - (a) Address whether there is sufficient evidence available, both in terms of frequency (time period between evidence) and coverage (in covering the full monitoring period);
  - (b) Address the source and nature of the evidence (external or internal, oral or documented);
  - (c) Cross-check the monitoring report against other sources such as comparable information, where available, from sources other than those used in the monitoring report to determine whether the stated figures are correct.
- 323. The DOE shall only certify GHG emission reductions or net anthropogenic GHG removals that are based on verifiable evidence.

#### 9.1.2.3. Application of materiality

#### 9.1.2.3.1. General

- 324. The concept of materiality is applicable to the verification of all types of registered CDM project activities. It is not applicable to:
  - (a) Uncertainties related to measurement;
  - (b) Addressing temporary deviations and permanent changes to the registered monitoring plan, the applied methodologies or the applied standardized baselines, regardless of whether corresponding GHG emission reductions or net anthropogenic GHG removals are above or below materiality thresholds.
- 325. A DOE planning and conducting verification using the concept of materiality shall achieve a reasonable level of assurance that the reported GHG emission reductions or net anthropogenic GHG removals are free from material errors, omissions or misstatements in accordance with paragraphs 326– 336 below.<sup>30</sup>

<sup>&</sup>lt;sup>30</sup> For additional guidance and examples of the application of materiality in the verification, refer to the "Guideline: Application of materiality in verifications".

- 326. An omission, misstatement, or erroneous reporting of information is material if it might lead, at an aggregated level, to an overestimation of the total GHG emission reductions or net anthropogenic GHG removals achieved by a registered CDM project activity equal to or higher than the following thresholds:
  - 0.5 per cent of the emission reductions or removals for project activities achieving a total emission reduction or removal equal to or more than 500,000 tonnes of carbon dioxide equivalent per year;<sup>31</sup>
  - (b) 1 per cent of the emission reductions or removals for project activities achieving a total emission reduction or removal of between 300,000 and 500,000 tonnes of carbon dioxide equivalent per year;
  - (c) 2 per cent of the emission reductions or removals for large-scale project activities achieving a total emission reduction or removal of 300,000 tonnes of carbon dioxide equivalent per year or less;
  - (d) 5 per cent of the emission reductions or removals for small-scale project activities other than registered CDM project activities covered under subparagraph (e) below;
  - (e) 10 per cent of the emission reductions or removals for the type of project activities referred to in decision 3/CMP.6, paragraph 38 (referred to as microscale project activities).
- 327. Recognizing that circumstances may exist that could cause the information reported by project participants to be materially misstated, the DOE should plan and perform verifications with an attitude of professional scepticism and rely on its professional judgement when applying the concept of materiality.
- 328. The application of the concept of materiality and reasonable level of assurance imply that some data or information may not be checked. However, the DOE should design its verification and sampling plans to detect all material errors, omissions or misstatements, and any unchecked data or information should not contain any material errors, omissions or misstatements. A DOE's verification opinion applies to 100 per cent of the data and information, even if the DOE may not have checked the entire data set and information.
- 329. Applying the concept of materiality does not mean that identified errors are not corrected; if an error, omission or misstatement is identified by the DOE, regardless of whether it is material or not, the DOE shall request project participants to address it.

#### 9.1.2.3.2. Consideration of materiality in planning verification

- 330. The DOE should:
  - (a) Identify the materiality threshold referred to in paragraph 326 above that corresponds to the amount of GHG emission reductions or net anthropogenic GHG removals that the specific registered CDM project activity will achieve;
  - (b) Understand the environment in which the registered CDM project activity operates, the sources of project emissions within the project boundary and the leakage, the

<sup>&</sup>lt;sup>31</sup> A year refers to a period of 12 consecutive months.

monitoring activities, the equipment used to monitor or measure activity data, the origin and application of data used to calculate or measure the emissions, data flow, the internal quality control system, and the overall organization with respect to monitoring and reporting;<sup>32</sup>

- (c) Conduct a risk assessment to identify and assess the risks of individual or aggregated material errors, omissions or misstatements that may occur within the threshold based on elements in subparagraphs (a) and (b) above;
- (d) Design verification plans, audit procedures<sup>33</sup> and sampling plans whose type, timing<sup>34</sup> and extent are based on and are responsive to the assessed risks of material errors, omissions or misstatements.
- 331. The materiality thresholds apply to the total GHG emission reductions or net anthropogenic GHG removals actually achieved. When planning verification, the DOE should apply the applicable materiality threshold to the reported total emission reductions or removals. If, as a result of the verification, the initial reported total emission reductions or removals is revised, the DOE should reapply the materiality threshold to the revised total emission reductions or removals are removals and, if needed, make adjustments to its verification plans and sampling plans.

#### 9.1.2.3.3. Consideration of materiality in conducting verification

- 332. The DOE should:
  - (a) Apply verification plans, audit procedures and sampling plans;
  - (b) Assess potential errors, omissions and misstatements against the materiality threshold to determine whether they are material individually or in aggregate and whether further audit procedures are needed.
- 333. If an error, omission or misstatement is detected, the DOE should be aware that it may not be an isolated occurrence and may be a systemic reoccurring error. For example, other errors may exist if the DOE identifies that the error, omission or misstatement arose from a breakdown in the project participants' internal quality control and quality assurance system.
- 334. If an immaterial error, omission or misstatement is detected, the DOE shall request the project participants to address it and should determine whether additional audit procedures should be conducted in order to reach a reasonable level of assurance that the claimed GHG emission reductions or net anthropogenic GHG removals are free from material error, omission or misstatement.
- 335. If a material error, omission or misstatement is detected, the DOE may, depending on the circumstances of the error, immediately request project participants to address it or conduct additional audit procedures to confirm or determine the context and magnitude of

<sup>&</sup>lt;sup>32</sup> Adapted from European Union. 2007. Commission Decision of 18 July 2007 establishing guidelines for the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council.

<sup>&</sup>lt;sup>33</sup> In accordance with paragraphs 337–342 below.

<sup>&</sup>lt;sup>34</sup> For example, timing may refer to the specific time intervals for which the DOE may draw its samples.

the error, omission or misstatement and then shall request project participants to address it.

336. If further audit procedures are necessary, the DOE may consider whether the overall verification plans and sampling plans need to be revised.

#### 9.1.3. Means of verification

#### 9.1.3.1. Standard auditing techniques

- 337. The DOE shall assess the information provided by the project participants.
- 338. In assessing the information, the DOE shall apply the means of verification specified throughout this standard and, where appropriate, standard auditing techniques to assess the quality of the information, including but not limited to:
  - (a) Document review, involving:
    - (i) A review of the data and information presented to verify their completeness;
    - (ii) A review of the registered monitoring plan, the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;
    - (iii) An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of GHG emission reductions or net anthropogenic GHG removals;
  - (b) On-site inspection taking into account paragraphs 339–341 below, involving:
    - (i) An assessment of the implementation and operation of the registered CDM project activity as per the registered PDD or any approved revised PDD;
    - (ii) A review of information flows for generating, aggregating and reporting the monitoring parameters;
    - (iii) Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the registered monitoring plan;
    - (iv) Cross checks between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources;
    - A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD, the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents;
    - (vi) A review of calculations and assumptions made in determining the GHG data and GHG emission reductions or net anthropogenic GHG removals;

- (vii) An identification of quality control and quality assurance procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters;
- (c) Sampling approach in accordance with the "Standard: Sampling and surveys for CDM project activities and programme of activities", including:
  - (i) A random sampling for cases where the project participants did not apply a sampling approach for monitoring;
  - (ii) An acceptance sampling or another sampling approach for cases where the project participants applied a sampling approach for monitoring.
- 339. It is mandatory for the DOE to conduct an on-site inspection at verification for the registered CDM project activity if:
  - (a) It is the first verification for the DOE with regard to this project activity;
  - (b) More than three years have elapsed since the last on-site inspection conducted for verification for the project activity; or
  - (c) The project activity has achieved more than 300,000 t CO<sub>2</sub> eq of GHG emission reductions or net anthropogenic GHG removals since the last verification when an on-site inspection was conducted.
- 340. For cases that are not referred to in paragraph 339 above, it is optional for the DOE to conduct an on-site inspection at verification. If the DOE does not conduct an on-site inspection as a means of verification, it shall describe the alternative means used and justify that they are sufficient for the purpose of verification.
- 341. If any issue related to the project design, including those attributable to the lack of on-site inspection at previous verification, is identified at the verification, the DOE that detected the issue shall rectify it through the post-registration change process in accordance with the "CDM project cycle procedure for project activities".
- 342. Where no specific means of verification is specified, the DOE should apply the standard auditing techniques described in paragraph 338 above.

### 9.1.3.2. Corrective action requests, clarification requests and forward action requests

- 343. If the DOE identifies issues related to the monitoring, implementation and operations of the registered CDM project activity that could impair the capacity of the project activity to achieve GHG emission reductions or net anthropogenic GHG removals, or influence the monitoring and reporting of emission reductions or removals, the DOE shall ensure that these issues are accurately identified, formulated, discussed and concluded in the verification and certification report.
- 344. The DOE shall raise a CAR if one of the following situations occur:
  - (a) Non-compliance with the registered monitoring plan, the applied methodologies, the applied standardized baselines or the other applied methodological regulatory documents is found in monitoring and reporting and has not been sufficiently

documented by the project participants, or if the evidence provided to prove conformity is insufficient;

- (b) Modifications to the implementation, operation and monitoring of the registered CDM project activity has not been sufficiently documented by the project participants;
- (c) Mistakes have been made in applying assumptions, data or calculations of GHG emission reductions or net anthropogenic GHG removals that will impact the quantity of emission reductions or removals;
- (d) Issues identified in a FAR during the validation to be verified during the verification or the previous verification(s) have not been resolved by the project participants.
- 345. The DOE shall raise a CL if information is insufficient or not clear enough to determine whether the applicable CDM rules and requirements have been met.
- 346. The DOE shall raise a FAR during verification for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.
- 347. The DOE shall resolve or "close out" CARs and CLs only if the project participants rectify the monitoring report, or provides additional explanations or evidence that satisfy the DOE's concerns. If this is not done, the DOE shall not submit a request for issuance of CERs.
- 348. The DOE shall report on all CARs, CLs and FARs in its verification and certification report. This reporting shall explain the issue raised, the responses provided by the project participants, the means of verification of such responses and references to any resulting changes in the monitoring report or supporting annexes.

#### 9.2. Verification of compliance

#### 9.2.1. General

- 349. The DOE shall include in its verification and certification report a description of how it applied the methods/procedures for the purpose of verification specified in the registered PDD. The DOE shall include in its verification and certification report a description of the on-site inspection(s), where conducted in accordance with paragraph 339 or 340 above.
- 350. The DOE shall confirm that monitoring periods have been consecutive. Further, the DOE shall confirm that monitoring reports have been published on the UNFCCC CDM website in a consecutive manner, that is, when a monitoring report has been published for a monitoring period, the DOE shall confirm that monitoring reports for the previous monitoring periods have been published.
- 351. A request for issuance of CERs shall relate to the CERs certified.

#### 9.2.2. Compliance of the monitoring report with the monitoring report form

- 352. The DOE shall determine whether the monitoring report was completed using the valid version of the applicable monitoring report form.
- 353. The DOE shall state its opinion on the compliance of the monitoring report with the relevant form and instructions therein.

### 9.2.3. Compliance of the project implementation with the registered project design document

- 354. The DOE shall identify any concerns related to the conformity of the actual CDM project activity and its operation with the registered PDD and determine whether:<sup>35</sup>
  - (a) The implementation and operation of the project activity has been conducted in accordance with the description contained in the registered PDD; or
  - (b) Any deviation or the proposed or actual changes in the implementation or operation of the project activity comply with the relevant requirements in the "CDM project standard for project activities".
- 355. By means of an on-site inspection or other means of verification in accordance with paragraph 339 or 340 above, the DOE shall assess that all physical features (technology, project equipment, and monitoring and metering equipment) of the registered CDM project activity specified in the registered PDD are in place and that the project participants have operated the project activity as per the registered PDD or any approved revised PDD.
- 356. For each monitoring period, the DOE shall report:
  - (a) The implementation status of the registered CDM project activity. For a project activity that consists of more than one site, the DOE shall describe the status of implementation and the starting date of operation for each site. For a project activity with phased implementation, the DOE shall state the progress of the project activity achieved in each phase under verification. If the phased implementation is delayed, the DOE shall describe the reasons and present the expected implementation dates;
  - (b) The actual operation of the registered CDM project activity;
  - (c) The information (data and variables) provided in the monitoring report that is different from that stated in the registered PDD or any approved revised PDD, and has caused an increase in the estimates of GHG emission reductions or net anthropogenic GHG removals in the current monitoring period or is highly likely to increase the estimates in the future monitoring periods;<sup>36</sup>
  - (d) An opinion on the cause of any increase in the actual GHG emission reductions achieved by the registered non-A/R CDM project activity in the current monitoring period that was reported in monitoring report.

### 9.2.4. Compliance of the registered monitoring plan with applied methodologies and standardized baselines

357. The DOE shall determine whether the registered monitoring plan is in accordance with the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents.

<sup>&</sup>lt;sup>35</sup> See decision 3/CMP.1, annex, paragraph 62(g).

<sup>&</sup>lt;sup>36</sup> Discrepancies may include higher water availability than expected in the PDD, which may increase the electricity output from a hydropower plant, or a higher plant load factor owing to higher bagasse availability during the crushing season, which increases the production of steam and electricity.

- 358. For monitoring aspects that are not specified in the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents, particularly in the case of small-scale methodologies (e.g. additional monitoring parameters, monitoring frequency and calibration frequency), the DOE should bring to the attention of the Board issues which may enhance the level of accuracy and completeness of the registered monitoring plan.
- 359. The DOE shall state its opinion on whether the registered monitoring plan is in accordance with the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents.

#### 9.2.5. Compliance of monitoring activities with the registered monitoring plan

- 360. The DOE shall determine whether the monitoring of parameters related to GHG emission reductions or net anthropogenic GHG removals in the registered PDD has been implemented in accordance with the registered monitoring plan.<sup>37</sup>
- 361. The DOE shall determine whether:
  - (a) The registered monitoring plan has been properly implemented and followed by the project participants;
  - (b) All parameters stated in the registered monitoring plan and relevant Board decisions<sup>38</sup> have been monitored and updated as applicable, including:
    - (i) Project emission or net removal parameters;
    - (ii) Baseline emission or net removal parameters;
    - (iii) Leakage parameters;
    - (iv) Management and operational system: the responsibilities and authorities for monitoring and reporting are in accordance with the responsibilities and authorities stated in the registered monitoring plan;
  - (c) The equipment used for monitoring is in accordance with section 9.2.6 below and is controlled and calibrated in accordance with the registered monitoring plan, the applied methodologies, the applied standardized baselines, the other applied methodological regulatory documents, Board guidance, local/national standards, or as per the manufacturer's specification;
  - (d) Monitoring results are consistently recorded as per the approved frequency;
  - (e) Quality assurance and quality control procedures have been applied in accordance with the registered monitoring plan.

<sup>&</sup>lt;sup>37</sup> In accordance with decision 3/CMP.1, annex, paragraph 56: "Project participants shall implement the monitoring plan contained in the registered project design document".

<sup>&</sup>lt;sup>38</sup> For example, a decision at the thirty-fifth meeting of the Board provides clarification for the registered CDM project activities that apply the approved methodology AM0001. The decision asked the DOE to check the value of "w" based on the past one-year period during verification, which was not clearly stated in the approved methodology.

- 362. For a non-A/R registered CDM project activity, if the project participants applied a sampling approach to determine data and parameters monitored, the DOE shall assess the compliance of the sampling efforts and surveys with the validated sampling plan in accordance with the "Standard: Sampling and surveys for CDM project activities and programme of activities".
- 363. The DOE shall state whether the monitoring has been carried out in accordance with the registered monitoring plan.
- 364. The DOE shall list each parameter required by the registered monitoring plan and state how it verified the information flow (from data generation, aggregation, to recording, calculation and reporting) for these parameters including the values in the monitoring report.

#### 9.2.6. Compliance with the calibration frequency requirements for measuring instruments

- 365. The DOE shall determine whether the calibration of the measuring equipment that has an impact on the claimed GHG emission reductions or net anthropogenic GHG removals is conducted by the project participants at the frequency specified in the applied methodologies, the applied standardized baselines, the other applied methodological regulatory documents or the registered monitoring plan.
- 366. If, during the verification of a certain monitoring period, the DOE identifies that the calibration has been delayed and the calibration has been implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available), referring to the illustrative examples in the appendix below, the DOE may conclude its verification, provided the following conservative approach is adopted in the calculation of GHG emission reductions or net anthropogenic GHG removals:
  - (a) Applying the maximum permissible error<sup>39</sup> of the instrument to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration, if the results of the delayed calibration do not show any errors in the measuring equipment, or if the error is smaller than the maximum permissible error; or
  - (b) Applying the error identified in the delayed calibration test, if the error is beyond the maximum permissible error of the measuring equipment.
- 367. The DOE shall confirm that the error has been applied:
  - (a) In a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals;
  - (b) For all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.
- 368. If the results of the delayed calibration are not available, or the calibration has not been conducted at the time of the verification, the DOE, prior to finalizing the verification, shall request the project participants to conduct the required calibration and shall determine

<sup>&</sup>lt;sup>39</sup> The maximum permissible errors of all the measuring instruments are specified by the respective manufacturers as part of their technical specifications.

whether the project participants have calculated GHG emission reductions or net anthropogenic GHG removals conservatively using the approach mentioned in paragraph 366 above.

- 369. If the DOE determines that it is not possible for the project participants to conduct the calibration at the frequency specified in the applied methodologies, the applied standardized baselines, the other applied methodological regulatory documents, guidance provided by the Board, or the registered monitoring plan due to reasons beyond the control of the project participants,<sup>40</sup> the DOE shall follow the applicable requirements related to post-registration changes in section 8 above.
- 370. If neither the applied methodologies, the applied standardized baselines, the other applied methodological regulatory documents, nor the registered monitoring plan specify any requirements for calibration frequency for the measuring equipment, the DOE shall determine whether the equipment is calibrated either in accordance with the specifications of the local/national standards, or as per the manufacturer's specification. If neither local/national standards nor the manufacturer's specification are available, the DOE shall determine whether the equipment is calibrated in accordance with the specifications of the international standards. Refer to the appendix below for an illustrative example to apply the above requirements.
- 371. The DOE shall report whether the calibration of the measuring equipment that has an impact on the claimed GHG emission reductions or net anthropogenic GHG removals is conducted at the frequency specified in the applied methodologies, the applied standardized baselines, the other applied methodological regulatory documents or the registered monitoring plan.

#### 9.2.7. Assessment of data and calculation of emission reductions or net removals

- 372. The DOE shall assess the data and calculations of GHG emission reductions or net anthropogenic GHG removals achieved by from the registered CDM project activity.
- 373. The DOE shall determine whether:
  - (a) A complete set of data for the specified monitoring period is available. If only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, the DOE shall assess whether:
    - (i) The most conservative values approach is applied to the parameters for the entire non-monitoring period in accordance with the provisions relating to temporary deviation from the registered monitoring plan, the applied methodologies or the applied standardized baselines in the "CDM project standard for project activities"; or
    - (ii) Alternative monitoring arrangements for the non-monitoring period are described, whether they apply conservative assumptions or discount factors to the calculations, and whether the alterative monitoring arrangements have been approved by the Board under the prior-approval track or to be approved by the Board under the issuance track in accordance with the provisions

<sup>&</sup>lt;sup>40</sup> For example, due to the contractual terms between the project participant and purchasing/selling entities.

relating to temporary deviation from the registered monitoring plan, the applied methodologies or the applied standardized baselines in the "CDM project standard for project activities";

- (b) The information provided in the monitoring report has been cross-checked with other sources such as plant logbooks, inventories, purchase records and laboratory analysis;
- (c) The calculations of baseline GHG emissions or baseline net GHG removals, project GHG emissions or actual net GHG removals, and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents;
- (d) Any assumptions used in emission or removal calculations have been justified;
- (e) Appropriate emission factors, IPCC default values, GWPs<sup>41</sup> and other reference values have been correctly applied;
- (f) For a registered CDM project activity using an approved standardized baseline that standardizes baseline emissions, the standardized values of the parameters were applied using the correct version of the applied standardized baseline in accordance with the "CDM project standard for project activities";
- (g) The pro-rata approach or the specific approach for A/R project activities was correctly applied to the calculations of GHG emission reductions or net anthropogenic GHG removals in accordance with the "CDM project standard for project activities", if the monitoring period starts before 31 December 2012 and ends anytime thereafter;
- (h) The first day when CERs are being claimed is correctly specified in accordance with the "CDM project cycle procedure for project activities", if the current monitoring period covers the first day of the renewed crediting period.
- 374. The DOE shall provide:
  - (a) An indication of whether a complete set of data for the monitoring period was not available because activity levels or non-activity parameters were not monitored in accordance with the registered monitoring plan, and if so, whether the most conservative values approach was applied or alternative monitoring arrangements were proposed or have been approved by the Board;
  - (b) A description of how the DOE cross-checked reported data;
  - (c) A confirmation that appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals, project GHG emissions or actual net GHG removals and leakage GHG emissions have been followed;

<sup>&</sup>lt;sup>41</sup> See decision 4/CMP.7 for GWPs for the calculation of emission reductions and removal enhancements achieved by the registered CDM project activities in the second commitment period (from 1 January 2013).

- (d) An opinion on whether assumptions, emission factors and default values that were applied in the calculations have been justified;
- (e) A confirmation that the pro-rata approach or the specific approach for A/R project activities was correctly applied to the calculations of GHG emission reductions or net anthropogenic GHG removals, where applicable;
- (f) A confirmation that the first day in which CERs are being claimed has been correctly specified, where applicable.

#### 9.2.8. Assessment of reported sustainable development co-benefits

- 375. If the project participants have monitored the sustainable development co-benefits of the registered CDM project activity, and requested the DOE to verify them, it shall assess whether:
  - (a) The monitoring has been carried out in accordance with the document for monitoring sustainable development co-benefits, if such document was developed and published on the UNFCCC CDM website in accordance with the "CDM project standard for project activities";
  - (b) The reported monitoring results correspond to the sustainable development cobenefits of the project activity as observed by the DOE.
- 376. The DOE shall provide:
  - (a) A description of how the DOE has conducted the assessment referred to in paragraph 375 above;
  - (b) Findings from the assessment.
- 377. The findings from the assessment shall have no bearing on the final verification opinion of the DOE.

#### 9.3. Specific verification requirements for small-scale project activities

- 378. The DOE shall determine whether the registered small-scale CDM project activity remains within the limit of the type of small-scale project activities defined in the "CDM project standard for project activities". If the project activity exceeds the limit of its type in any year of the crediting period, the DOE shall assess whether this was caused by the post-registration changes validated in accordance with relevant requirements in section 8 above. If the DOE determines that there are no such post-registration changes to the project activity, and therefore the scale of the project activity does not change, for a Type II or Type III small-scale CDM project activity, it shall assess whether the calculated GHG emission reductions during this particular year were capped at the amount calculated with the limit of its type.
- 379. For the bundled registered small-scale CDM project activities, the DOE shall:
  - (a) Determine whether the bundle of registered small-scale CDM project activities was implemented and monitored;
  - (b) Determine whether no project activities in the bundle have been taken out of or added to the bundle since the registration;

- (c) The DOE shall determine whether each sub-bundle of the registered bundle of small-scale CDM project activity remains within the limit of the type of small-scale project activities defined in the relevant requirements in the "CDM project standard for project activities". If the DOE determines that the sub-bundle goes beyond its type, it shall assess whether the calculated emission reductions during this particular year were capped at the amount calculated with the limit of its type;
- (d) Prepare a single verification and certification report for a registered bundle of smallscale CDM project activities if a single PDD was prepared for the registration. If separate PDDs were prepared for each project activity in the bundle for the registration, the DOE may choose to prepare a single verification and certification report, addressing each project activity in the bundle separately but with the same monitoring period in the report, or separate verification and certification reports, each corresponding to each PDD.

## 9.4. Specific verification requirements for afforestation and reforestation project activities

- 380. At the first verification for an A/R CDM project activity, the DOE shall, in accordance with paragraph 34(d) of the CDM A/R M&Ps, confirm those areas of land for which the control over the project activity has been established by the project participants since validation.
- 381. As a part of the first verification and certification report for an A/R CDM project activity, the DOE shall confirm that the boundary of the project activity geographically delineates exclusively the A/R project activity under the control of the project participants.
- 382. If temporary CERs (tCERs) were issued based on the previous verification and certification, the DOE shall confirm that the current verification and certification is for the first time in the current commitment period. If long-term CERs (ICERs) were issued based on the previous verification and certification, the DOE shall confirm that the current verification and certification is within eight years of the date when the previous certification report was submitted until the end of the current crediting period.<sup>42</sup>
- 383. For ICERs, if the monitoring period falls partly in the first commitment period and partly in the second commitment period of the Kyoto Protocol, the DOE shall confirm that all net anthropogenic GHG removals achieved since the last verification are allocated to the second commitment period. For tCERs, for any issuance, the DOE shall confirm that all net anthropogenic GHG removals achieved since the start of the project activity are allocated to the commitment period in which the monitoring period ends.

<sup>&</sup>lt;sup>42</sup> Decision 4/CMP.10 revised the timing of verification for A/R CDM project activities defined in the annex to decision 5/CMP.1.

# 9.5. Specific verification requirements for carbon dioxide capture and storage project activities

#### 9.5.1. General

- 384. In accordance with the section "Verification and certification" of the "CDM project standard for project activities", the DOE contracted by the project participants to perform the verification shall:
  - (a) Determine whether monitoring was conducted in accordance with the registered monitoring plan and the provisions for monitoring set out in the section "Monitoring" of the "CDM project standard for project activities";
  - (b) Determine whether the site development and management plan is being adhered to;
  - (c) Determine whether any significant deviations were observed during history matching and whether, in such a case, a recharacterization of the geological storage site, an update of the risk and safety assessment, an update of the environmental and socioeconomic impact assessments, a revision to the project boundary, and a revision to the monitoring plan have been conducted, as necessary, in accordance with the CCS-related provisions set out in the "CDM project standard for project activities";
  - (d) Determine whether seepage occurred from the geological storage site of the registered CCS CDM project activity during the verification period;
  - (e) In the case that such seepage occurred:
    - (i) Determine whether the remedial measures and plans described in the risk and safety assessment were implemented and effective;
    - (ii) Determine whether a net reversal of storage occurred as a result of the seepage;
  - (f) In the case that a net reversal of storage occurred, quantify the amount of the net reversal of storage that occurred as a result of the seepage;
  - (g) Determine whether there have been any unintentional transboundary effects;
  - (h) Where applicable, determine whether the geological storage site has been successfully closed.
- 385. The DOE shall check, for each verification period, whether the project participants have carried out history matching and, where necessary, updated the numerical models used to characterize the geological storage site by conducting new simulations using the monitored data and information. The numerical models shall be adjusted in the event of significant deviations between observed and predicted behaviour.
- 386. Where the information prepared in accordance with the section "Monitoring" of the "CDM project standard for project activities" indicates that the geological storage site no longer meets the requirements set out in the section "Selection and characterization of the geological storage site" of the "CDM project standard for project activities", the DOE shall provide a negative opinion on validation and/or verification.

387. The initial verification and certification of a registered CCS CDM project activity may be undertaken at a time selected by the project participants. Subsequent verification and certification reports shall be submitted to the Board not later than five years after the end of the previous verification period. Verification and certification shall continue beyond the end of the last crediting period of the registered CCS CDM project activity and shall only cease after the monitoring of the geological storage site has been terminated in accordance with the conditions for the termination of monitoring, as set out in the section "Monitoring" of the "CDM project standard for project activities".

#### 9.5.2. Request for issuance of certified emission reductions

- 388. A verification and certification report submitted for a verification period during the crediting period shall constitute a request to the Board for issuance of CERs equal to the verified reductions in anthropogenic emissions by sources of GHGs that have occurred as a result of the registered CCS CDM project activity.
- 389. A verification and certification report submitted for a verification period after the end of the last crediting period shall not constitute a request for issuance of CERs but shall provide, where applicable, information on the amount of any net reversal of storage that occurred during the verification period as a result of seepage from the geological storage site of a registered CCS CDM project activity, in accordance with the "CDM project standard for project activities" and the "CDM project cycle procedure for project activities" and any decisions of the Board.
- 390. The last verification and certification report, submitted after the monitoring of the geological storage site has been terminated in accordance with the conditions for the termination of monitoring, as set out in the section "Monitoring" of the "CDM project standard for project activities", may constitute a request to forward any CERs remaining in the reserve account established for the purpose of accounting for any net reversal of storage to the registry accounts of the Parties and project participants involved.

#### 9.6. Global stakeholder consultation

- 391. For the stakeholder consultation conducted after the publication of the first monitoring report in accordance with the "CDM project cycle procedure for project activities", the requirements for and means of validation in paragraphs 254–260 above shall apply mutatis mutandis with the following adjustments:
  - (a) The DOE may request further information from the submitters of the comments. The DOE shall also inform the project participants of the comments received, and request their feedback within a specified timeframe. The DOE shall consider the input received and assess whether such comments are relevant to the CDM project activity;
  - (b) If the DOE concludes that the comments are related to the CDM rules and requirements, it may raise a CAR and submit a positive verification opinion only when the CAR is resolved by the project participants;
  - (c) If the DOE concludes that comments are related to issues outside the CDM rules and requirements, it shall annex the comments and information gathered, as well as any feedback from the project participants, to its verification and certification report (the "comments annex").

392. The DOE shall take due account of all authentic and relevant comments in the verification for the first request for issuance of CERs.

#### 9.7. Verification status and verification and certification report

#### 9.7.1. Verification status

393. The DOE shall provide an update of the status of its verification activity as applicable in accordance with the "CDM project cycle procedure for project activities".

#### 9.7.2. Verification and certification report

- 394. The verification and certification report shall give an overview of the verification process used by the DOE in order to arrive at its verification conclusions. All verification findings shall be identified and justified.
- 395. The DOE shall report the following:
  - (a) A summary of the verification process, the scope of verification and the conclusion;
  - (b) Details of the verification team, technical experts, internal reviewers involved, together with their roles in the verification activity and, where conducted in accordance with paragraph 339 or 340 above, details of who conducted the onsite inspection;
  - (c) Findings of the desk review and, where conducted in accordance with paragraph 339 or 340 above, on-site inspection and sampling approach used by the DOE. Where the DOE applied a sampling approach to the on-site inspection, the DOE shall include a description of how the sample size was determined and how the field check was carried out;
  - (d) All its applied approaches, findings and conclusions on requirements set out in section 9.2 above;
  - (e) A list of each parameter specified by the registered monitoring plan and a statement on how the values in the monitoring report have been verified;
  - A statement on whether any post-registration changes to the registered PDD have been approved by the Board or will be submitted together with the request for issuance of CERs;
  - (g) An assessment and close-out of any CARs, CLs or FARs issued to the project participants;
  - (h) An assessment of remaining issues from the previous verification period, if appropriate;
  - (i) Information on quality control within the team and in the verification process;
  - (j) A conclusion on the verified amount of GHG emission reductions or net anthropogenic GHG removals achieved.

- 396. Where the DOE applied the concept of materiality in planning and conducting verification for the registered CDM project activity in accordance with section 9.1.2.3 above, it shall report:
  - (a) The risks, the risk assessment undertaken and how the verification plans and sampling plans were designed to respond to these risks and ensure that all material errors, omissions or misstatements were detected;
  - (b) Whether and how the verification plans and sampling plans were revised to take into account the need for further audit procedures due to the nature/type of errors, omissions or misstatements detected;
  - (c) How the concept of materiality was applied in determining whether a detected error, omission or misstatement was material or immaterial either individually or in aggregate.
- 397. The DOE shall describe all documentation supporting the verification and make it available on request.
- 398. The DOE shall, based on its verification, certify in writing that, during the specified monitoring period, the registered CDM project activity achieved the verified amount of GHG emission reductions or net anthropogenic GHG removals that would not have occurred in the absence of the project activity.<sup>43</sup>
- 399. The DOE shall inform the project participants, the Parties involved and the Board of its certification decision in writing immediately upon completion of the certification process and shall make the verification and certification report publicly available as part of the request for issuance of CERs in accordance with the "CDM project cycle procedure for project activities".

### **10.** Validation for renewal of crediting period

#### 10.1. General

- 400. The DOE shall determine whether the project participants have updated sections of the PDD relating to the baseline, estimated GHG emission reductions or net anthropogenic GHG removals, the monitoring plan and the crediting period using the valid version of the approved methodologies and, where applicable, the approved standardized baselines and the other methodological regulatory documents that are applicable to the project activity.
- 401. To renew the crediting period of a registered CDM project activity that has not been implemented in the first crediting period, the DOE shall obtain an approval of the Board to proceed with a request for renewal of crediting period prior to the submission of such request in accordance with the "CDM project cycle procedure for project activities". For a registered CDM project activity that will not have income other than that from CERs to be issued for the project activity, this prior approval of the Board is not required, therefore the DOE may directly proceed with a request for renewal of crediting period.

<sup>&</sup>lt;sup>43</sup> In accordance with paragraph 64 of the CDM M&Ps, the certification report constitutes a request to the Board for issuance of CERs equal to the verified amount of reductions of anthropogenic emissions by sources of greenhouse gases.

- 402. The DOE shall apply the requirements in section 7.1.3 above mutatis mutandis to validate the information provided by the project participants.
- 403. If the project participants used a later valid version of the PDD form for the updated PDD than the version of the form of the registered PDD, the DOE shall determine whether the information transferred to the later valid version of the PDD form is materially the same as that in the registered PDD.
- 404. The DOE shall assess the validity of the original baseline or its update through an assessment of the following issues:
  - (a) The impact of new relevant national and/or sectoral policies and circumstances on the baseline, taking into account relevant guidance from the Board with regard to renewal of the crediting period of a registered CDM project activity, at the time of requesting renewal of crediting period of the project activity;
  - (b) The correctness of the application of the approved methodologies and, where applicable, the approved standardized baselines and the other methodological regulatory documents for the determination of the continued validity of the baseline or its update, and the estimation of GHG emission reductions or net anthropogenic GHG removals for the applicable crediting period of the registered CDM project activity.
- 405. The requirements contained in paragraph 404(a) above shall not apply to a registered CDM project activity using the valid version of an applicable approved standardized baseline that standardizes the baseline scenario.
- 406. The DOE shall check that the names of the project participants included in the updated PDD are consistent with the names of the project participants in the latest version of the MoC statement.
- 407. If the project participants selected another methodology, methodological tool and/or standardized baseline for the purpose of renewal of crediting period of the registered CDM project activity due to the inapplicability of the valid version of the methodology (including a consolidated methodology thereof), methodological tool and/or standardized baseline applied to the registered PDD, the DOE shall assess whether the updated PDD complies with all the requirements of the selected methodology, methodological tool and/or standardized baseline except for additionality demonstration.
- 408. If the project participants requested a deviation from the valid version of the methodology (including a consolidated methodology thereof) and/or methodological tool applied in the registered PDD, or from any other selected methodology and/or methodological tool for the purpose of renewal of crediting period of the registered CDM project activity, or if the DOE finds at validation that the updated PDD deviated from the valid version of the methodology and/or methodological tool applied in the registered PDD or from any other selected methodology and/or methodological tool applied in the registered PDD or from any other apply mutatis mutandis.
- 409. If the project participants requested for approval of post-registration changes together with the request for renewal of crediting period of the registered CDM project activity, the DOE shall also validate the post-registration changes in accordance with the relevant requirements in section 8 above and the "CDM project cycle procedure for project activities", and shall submit a request for approval of post-registration changes together

with the request for renewal of crediting period of the project activity in accordance with the relevant requirements in the "CDM project cycle procedure for project activities".

- 410. The DOE shall request the project participants to provide an updated PDD prepared in accordance with the relevant requirements in the "CDM project standard for project activities".
- 411. The DOE shall prepare a validation report for renewal of crediting period of the registered CDM project activity using the valid version of the applicable validation report form for renewal of crediting period of the project activity.
- 412. In its validation report for renewal of crediting period of the registered CDM project activity, the DOE shall:
  - (a) Provide all its applied approaches, findings and conclusions on whether:
    - (i) The updated PDD has been completed using the valid version of the applicable PDD form, following the instructions therein;
    - (ii) The information transferred to the later valid version of the PDD form is materially the same as that in the registered PDD, where applicable;
    - (iii) The methodologies and, where applicable, the standardized baselines and the other methodological regulatory documents were applied in accordance with the applicable requirements in the "CDM project standard for project activities";
    - (iv) The baseline, the estimated GHG emission reductions or net anthropogenic GHG removals, and the monitoring plan in the updated PDD comply with the applicable requirements in the "CDM project standard for project activities", and the valid version of the methodologies and, where applicable, the standardized baselines and the other methodological regulatory documents that are applied in the updated PDD;
    - (v) The next crediting period of the project activity commences on the day immediately after the expiration of the current crediting period;
    - (vi) The names of the project participants in the updated PDD are consistent with the names of the project participants in the latest version of the MoC statement;
  - (b) Report on all items listed in paragraph 272 above except paragraph 272(c) above;
  - (c) Follow paragraphs 267–270 above mutatis mutandis on its validation opinion;
  - (d) Provide a statement on whether any proposed post-registration changes for the next crediting period will be submitted together with the request for renewal of crediting period of the project activity.

## 10.2. Specific validation requirements for carbon dioxide capture and storage project activities

413. In accordance with the section "Monitoring" of the "CDM project standard for project activities", the DOE shall determine whether the project participants have carried out the

following updates to ensure that they meet the requirements related to CCS project activities:

- (a) Recharacterize the geological storage site in accordance with the section "Selection and characterization of the geological storage site" of the "CDM project standard for project activities";
- (b) Revise the project boundary;
- (c) Update the risk and safety assessment, in accordance with the section "Risk and safety assessment" of the "CDM project standard for project activities";
- (d) Update the environmental and socioeconomic impact assessments;
- (e) Revise the monitoring plan in order to improve the accuracy and/or completeness of data and information, taking into account observed deviations determined during history matching, changes to the project boundary, changes to the risk and safety assessment, changes to the environmental and socioeconomic impact assessments, new scientific knowledge and improvements in the best available technology;
- (f) Update the site development and management plan, taking account of the results of the activities described in subparagraphs (a)–(e) above, where appropriate.
- 414. Where the information prepared in accordance with paragraph 413 above indicates that the geological storage site no longer meets the requirements set out in the section "Selection and characterization of the geological storage site" of the "CDM project standard for project activities", the issuance of CERs shall cease and the DOE shall issue a negative validation opinion.

#### Calibration Appendix.

- 1. The following provides an illustrative example for applying the provisions in paragraph 366(a) and (b) of this standard.
- 2. An electricity energy meter with a maximum permissible error (±5%), which may be used for measuring the electricity export for baseline emissions and electricity import for project emission calculations, is required to be calibrated every year. If the calibration is delayed and instead of after one year it is conducted after one and a half years, and the result of the delayed calibration is available at the time of verification, to account for the delayed calibration the measured values shall be corrected as demonstrated in the following Table 1 and Table 2 for situations stipulated in paragraph 366(a) and (b) of this standard.

Table 1.	Sample calculation for the cases where the error identified in the delayed calibration is smaller than the maximum permissible error
	Error identified

Measured value	Parameter	Error identified during delayed calibration	Corrected values
100 MWh	Electricity export	±2%	100 (1-Max. permissible error%/100) = 95 MWh
100 MWh	Electricity import	±2%	100 (1+Max. permissible error%/100) = 105 MWh

#### Table 2. Sample calculation for the cases where the error identified in the delayed calibration is larger than the maximum permissible error

Measured value	Parameter	Error identified during delayed calibration	Corrected values
100 MWh	Electricity export	±7%	100 (1-error%/100) = 93 MWh
100 MWh	Electricity import	±7%	100 (1+error%/100) =107 MWh

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Version	Date	Description
02.0	29 November 2018	EB 101, Annex 2
		Revision to:
		<ul> <li>Introduce provisions that require the validating DOE to provide opinions on whether the revised estimation of emission reductions due to post-registration changes takes into accoun the applicable limits and whether post-registration changes would adversely affect the validation opinion with regard to the project boundary and any associated leakages due to the changes;</li> </ul>
		<ul> <li>Clarify that the requirements to demonstrate prior consideration of the CDM are only applicable for project activities with a start date before 2 August 2008;</li> </ul>
		<ul> <li>Restructure the section (temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines) to align it with the corresponding section for PoAs in the VVS-PoA;</li> </ul>
		<ul> <li>Delete a process-related requirement to avoid overlap with the PCP-PA;</li> </ul>
		<ul> <li>Delete the section on specific validation requirements for A/R project activities due to an overlap with the content in the general section;</li> </ul>
		Streamline the process of renewal of crediting period;
		<ul> <li>Consistently refer to the relevant regulatory documents such as "methodological tools" and "guidelines" in the paragraphs that refer to "methodologies" throughout the document;</li> </ul>
		Make editorial improvements.
01.0	3 March 2017	EB 93, Annex 5
		Initial adoption.
		This document, together with the "CDM validation and verification standard for programmes of activities (CDM-EB93-A08-STAN) was part of a single document titled "CDM validation and verification standard (CDM-EB65-A04-STAN) until version 09.0.
		This document, together with the "CDM project standard for project activities" (CDM-EB93-A04-STAN), "CDM project cycle procedure for project activities (CDM-EB93-A06-PROC), "CDM project standard for programmes of activities" (CDM-EB93-A07-STAN "CDM validation and verification standard for programmes of activities" (CDM-EB93-A08-STAN) and "CDM project cycle procedure for programmes of activities (CDM-EB93-A09-PROC) supersedes and replaces the following documents on the date when these six documents enter into force:
		<ul> <li>"Standard: Demonstration of additionality, development or eligibility criteria and application of multiple methodologies for programme of activities" (CDM-EB65-A03-STAN) (version 04.0);</li> </ul>

#### **Document information**

Version	Date	Description
		<ul> <li>"Standard: General principles for bundling" (CDM-EB21-A21- STAN) (version 03.0);</li> </ul>
		<ul> <li>"Amendment to version 09.0 of the CDM project standard" (CDM-EB86-A05-AMEN) (version 01.0);</li> </ul>
	<ul> <li>"Amendment to version 09.0 of the CDM project cycle procedure" (CDM-EB86-A06-AMEN) (issued at EB 86);</li> </ul>	
		<ul> <li>"Clarification: Renewal of crediting period of registered CDM project activity that has not been implemented in the first crediting period" (CDM-EB82-A16-CLAR) (version 01.0);</li> </ul>
		<ul> <li>"Clarification: New project activity in the same physical or geographical location at which a project activity whose crediting period has expired existed" (CDM-EB83-A01-CLAR) (version 02.0).</li> </ul>
		This document also reflects various changes for simplifying and streamlining the CDM as agreed by the Board during EB 86-EB 93.
Documer Business	Class: Regulatory at Type: Standard Function: Issuand s: DOE, project ac	