





Ver. 6.0

August 2008 Updated up to the results of the EB41



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This document aims to give a comprehensive and easy-to-understand description of the Clean Development Mechanism (CDM). It should be noted that this document does not replicate in the exact manner all the texts agreed upon in the international negotiations. Also, there are issues yet to be settled in the international negotiations regarding detailed interpretations and processes. As for the details and exact expressions in the agreed texts, please refer to the respective documents available on the website of the United Nations Framework Convention on Climate Change .">http://unfccc.int/>.

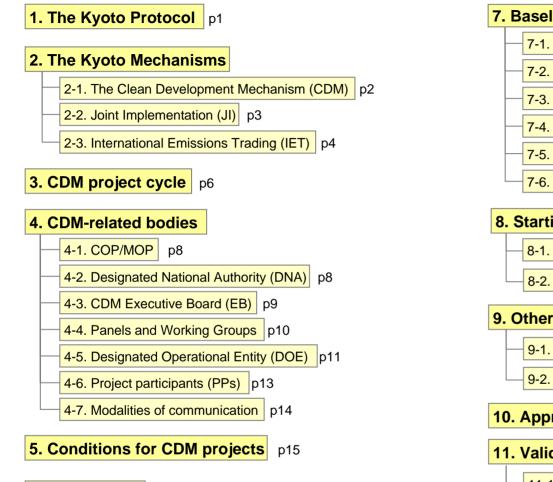
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Abbreviations and Acronyms

1	
Assigned Amount Unit	
Approved Consolidated Methodology	
Applicant Entity	
Approved Methodology	
Approved small-scales methodologies	
Afforestation and Reforestation Project Activities under the Clean Development Mechanism	
Afforestaion and Reforestation	
Carbon dioxide Capture and Storage	
Clean Development Mechanism	
CDM Accreditation Panel	
Carbon Emission Factor	
Certified Emission Reduction	
Conference of the Parties (to the UNFCCC)	
the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol	
CDM programme activity	
Commitment Period Reserve	
Designated National Authority	
Designated Operational Entity	
CDM Executive Board	
Economies in Transition	
Emission Reduction	
Expert Review Team	
Emission Reduction Unit	
Greenhouse Gas	
Global Warming Potential	
Hydrofluorocarbons	
International emissions trading under the Kyoto Protocol	
Intergovernmental Panel on Climate Change	
International Transaction Log	

	-	
KP	Kyoto Protocol	
LULUCF	Land Use, Land-Use Change and Forestry	
MP	Methodologies Panel	
NM	New Methodology	
OE	Operational Entity	
Party	Country or regional integration organization which has ratified the KP, unless otherwise specified	
PDD	Project Design Document	
PFCs	Perfluorocarbons	
PoA	Programme of Activities	
PP	Project Participant	
RMU	Removal Unit	
SAR	(the IPCC) 2nd Assessment Report	
SBI	Subsidiary Body for Implementation	
SBSTA	Subsidiary Body for Scientific and Technological Advice	
SF ₆	Sulfur Hexafluoride	
SOP	Share of Proceeds	
SSC	Small Scale CDM	
SSC-WG	Working group for small-scale CDM project activities	
UNFCCC	United Nations Framework Convention on Climate Change	

Tree Diagram of Contents



6. Making PDD p17

7. Baseline

- 7-1. Concept of the baseline and additionality p19
- 7-2. Baseline scenario p20
- 7-3. Baseline methodology p21
- 7-4. Procedures for the submission of a proposed new methodology (NM) p22
- 7-5. Procedures for the revision of an approved methodology (AM) or tool p24
- 7-6. Procedures for request for clarifications to approved methodologies p26

8. Starting date and crediting period

- 8-1. Starting date of a CDM project activity p27
- 8-2. Crediting period p29
- 9. Other items in the project design document (PDD)
 - 9-1. Project boundary and leakage p31
 - 9-2. Monitoring plan p31
- **10.** Approval from each Party involved p32

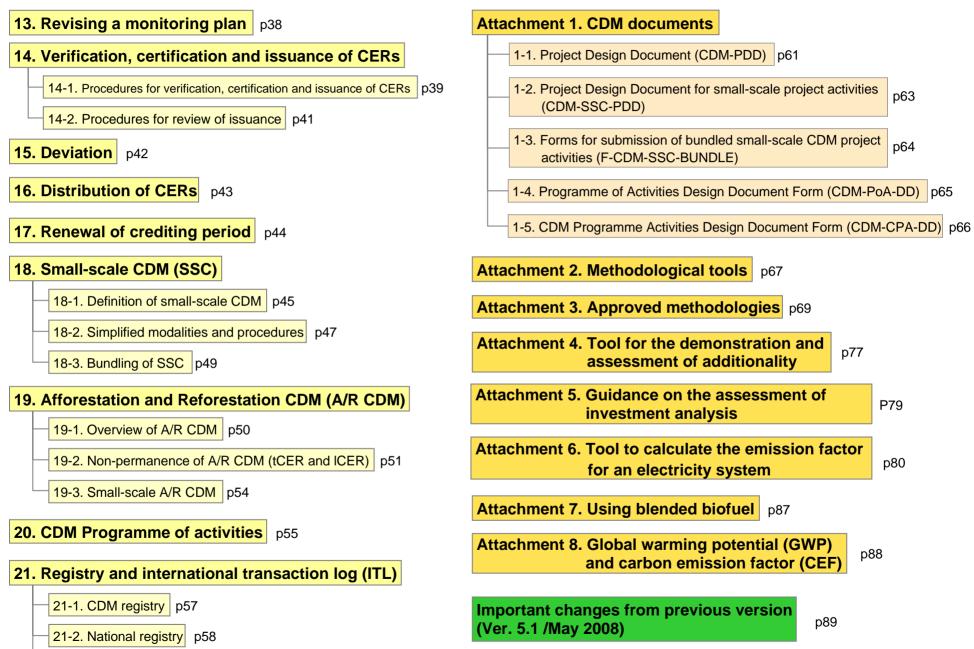
11. Validation

- 11-1. Procedures for validation p33
- 11-2. Validation requirements p34

12. Registration

- 12-1. Procedures for registration p35
- 12-2. Procedures for review of registration p36
- 12-3. Registration fee p37

Tree Diagram of Contents



21-3. International transaction log (ITL) p60

Glossary

Examples of abbreviated titles used in this document and corresponding formal document symbols and titles

Examples of abbreviated titles used in this charts, shown in []			
KP Art.2 para1(a)	The Kyoto Protocol, Article2, paragraph1(a)		
CP/2001/13/Ad2, p1 para2(a)	FCCC/CP/2001/13/Add.2, page 1 paragraph 2(a)		
CMP/2005/8/Ad1, p1 para2(a)	FCCC/KP/CMP/2005/8/Add.1, page 1 paragraph 2(a)		
EB01 Rep, para1(a)	Executive Board of the Clean Development Mechanism, 1 st Meeting Report, paragraph 1(a)		
EB01 Anx1, para1(a)	Executive Board of the Clean Development Mechanism, Annex 1 to the 1 st Meeting Report, paragraph 1(a)		
PDD GL ver.7, p1	Guidelines for Completing the Project Design Document (CDM-PDD), and the Proposed New Baseline and Monitoring Methodologies (CDM-NM) Version 7, page 1 (ver.7 was published on 2 August 2008)		
SSC GL ver5, p1	Guidelines for Completing CDM-SSC-PDD, F-CDM-SSC-Subm and F-CDM-SSC-BUNDLE, Version 05, page 1 (Ver.5 was published on 14 September 2007)		
Glos ver.3, p1	Glossary of CDM terms Version 03, page 1 (ver.3 was published on 30 November 2007)		
Anx stands for Annex, Apx for Appendix, Att for Attachment, and Ann for Annotation.			
CDM M&P means CDM Modalities and Procedures (Annex to Decision 17/CP.7) (FCCC/CP/2001/13/Add.2, p26-41)			
CDM A/R M&P means Modalities and Procedures for Afforestation and Reforestation project activities under the CDM (Annex to			

Decision 19/CP.9) (FCCC/CP/2003/6/Add.2, p16-27)

1. The Kyoto Protocol

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- ◆ The Kyoto Protocol was adopted at the 3rd session of the Conference of the Parties (COP3) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Kyoto, Japan, in December 1997.
- The Protocol defines quantified greenhouse gas (GHG) emissions reduction targets for Annex I Parties. [KP Art.3 para1]

GHGs defined by the	Annex I Parties means	Annex I Parties have different GHG emission ceilings for the 5-year period
Protocol are carbon	those listed in Annex I of	of 2008-2012 (1st commitment period).
dioxide (CO ₂), methane	the UNFCCC. They are developed countries	Emission ceiling which is called 'assigned amounts' for each Party is calculated as follows.
(CH ₄), nitrous oxide	including Economies in	"The base-year emissions" x "emission reduction target" x five [KP Art.3 para7]
(N ₂ O), HFCs, PFCs,	Transitions, e.g. Russia	The base-year emissions are basically a Party's aggregate GHG
and SF ₆ . [KP AnxA]	and Eastern Europe.	emissions in 1990 (whereas, countries may use 1995 as its base year for HFCs, PFCs, and SF ₆). [KP Art.3 para1&8]

The Protocol introduces 3 market mechanisms, namely the Kyoto Mechanisms. Annex I Parties would be able to achieve their emission reduction targets cost-effectively, by using these mechanisms.

Joint Implementation (JI) <Article 6 of the Protocol>

Clean Development Mechanism (CDM)

<Article 12 of the Protocol>

International Emissions Trading <Article 17 of the Protocol>

Besides Parties, private firms may use the Kyoto Mechanisms. [CMP/2005/8/Ad2, p7 para29][CMP/2005/8/Ad1, p13 para33][CMP/2005/8/Ad2, p19 para5]
 Provided the Parties meet eligibility requirements for using the Kyoto Mechanisms.

BOX: Entry into force of the Kyoto Protocol

The Kyoto Protocol shall enter into force on the 90th day after the date on which not less than 55 Parties to the UNFCCC, incorporating Annex I Parties which accounted in total for at least 55% of the total CO₂ emissions for 1990 of the Annex I Parties, have deposited their instruments of ratification, acceptance, approval or accession. [KP Art.25 para1]

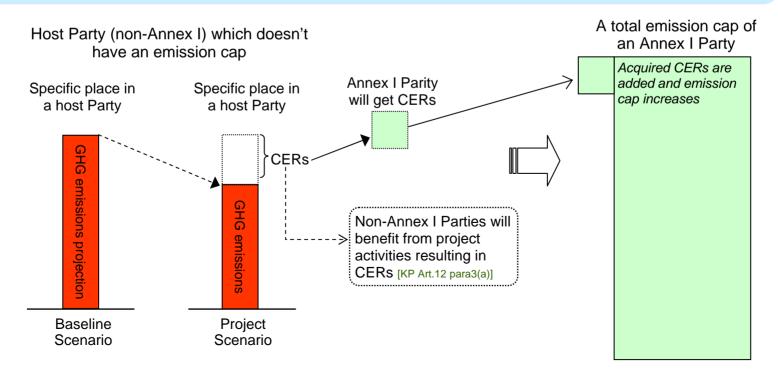
- Series As of 13 May 2008, 181 countries and one regional economic integration organization (the EEC) have deposited instruments of ratifications, accessions, approvals or acceptances.
- ☞ 63.7% of the total CO₂ emissions for 1990 of the Annex I Parties have ratified the Protocol.
 - ⇒The Protocol entered into force on 16 February 2005.

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2. The Kyoto Mechanisms

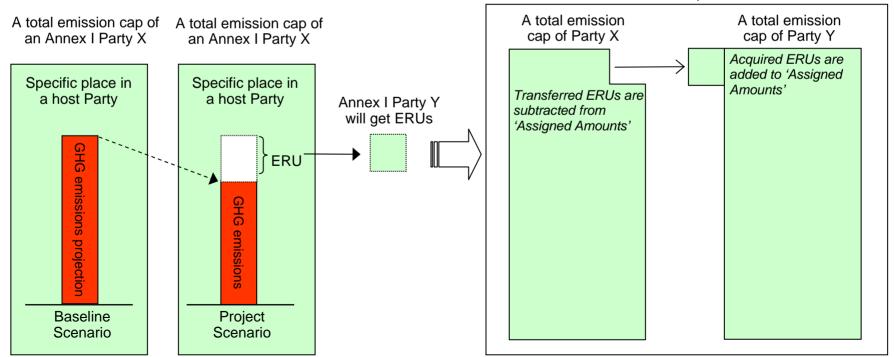
2-1. The Clean Development Mechanism (CDM)

- Annex I Parties which have ceilings for GHG emissions (emission caps), assist non-Annex I Parties which don't have emission caps, to implement project activities to reduce GHG emissions (or remove by sinks), and credits will be issued based on emission reductions (or removals by sinks) achieved by the project activities.
 - F A Party where CDM project is implemented, is called a host Party.
 - The credit from the CDM is called certified emission reduction (CER). [CMP/2005/8/Ad1, p7 para1(b)]
 - Reductions in emissions shall be additional to any that would occur in the absence of the certified project activity. [KP Art.12 para5(c)]
- Annex I Parties can use CERs to contribute to compliance of their quantified GHG emissions reduction targets of the Kyoto Protocol. [KP Art.12 para3(b)]
 - Search As a result, the amount of emission cap of Annex I Parties will increase.
- ◆ The CDM will issue CERs before the 1st commitment period.
 - CERs issued based on activities during the period from the year 2000 up to 2012 can be used in achieving compliance of Annex I Parties in the 1st commitment period. [KP Art.12 para10]



2-2. Joint Implementation (JI)

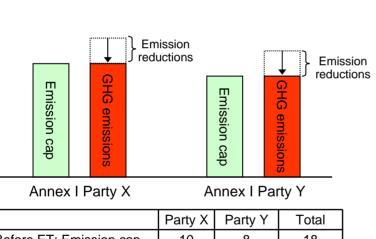
- Annex I Parties which have ceilings for GHG emissions (emission caps), assist other Annex I Parties to implement project activities to reduce GHG emissions (or remove by sinks), and credits will be issued based on amount of emission reductions (or removals by sinks) achieved by the project activities.
 - ☞ A Party where JI project is implemented, is called a host Party.
 - The credit from the JI is called emission reduction unit (ERU). [CMP/2005/8/Ad1, p7 para1(a)]
 - Any such project shall provide a GHG emission reductions, or removals by sinks, that is additional to any that would otherwise occur. [KP Art.6 para1(b)]
- Annex I Parties can use ERUs to contribute to compliance of their quantified GHG emissions reduction targets of the Kyoto Protocol. [KP Art.6 para1]
 - The total amount of emission cap of Annex I Parties will not change, because JI is credits transfer between the Parties both of which have emission caps.
- ♦ ERUs will be issued only after 2008. [CMP/2005/8/Ad2, p2 para5]



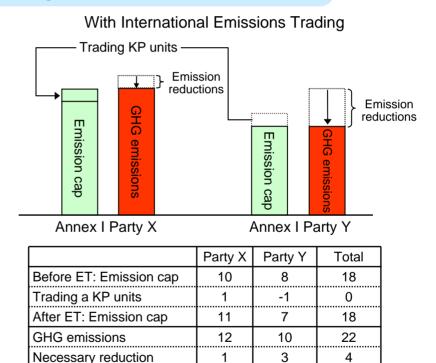
The total amount of emission cap of Annex I Parties is same

2-3. International Emissions Trading (IET)

- International Emissions Trading is to trade Kyoto Protocol units (KP units) including part of assigned amounts, CERs, ERUs and etc, between Annex I Parties.
 - For the total amount of emission cap of Annex I Parties will not change.
 - Protocol can participate International Emissions Trading.
 - ☞ Minimum trading unit is 1t-CO₂ equivalent.
- Through market mechanism, International Emissions Trading can decrease total cost of Annex I Parties to achieve their collective emission reduction targets.



Without International Emissions Trading



\$200

\$200

150

\$350

\$100

\$300

-150

\$150

\$500

0

\$500

	Party X	Party Y	Total
Before ET: Emission cap	10	8	18
Trading a KP unit	-	-	-
After ET: Emission cap	10	8	18
GHG emissions	12	10	22
Necessary reduction	2	2	4
Unit cost of reduction	\$200	\$100	-
Total cost of reduction	\$400	\$200	\$600
Trading cost	-	-	-
Total compliance cost	\$400	\$200	\$600

Note: Party Y sold a KP unit to Party X at \$150.

Unit cost of reduction

Total cost of reduction

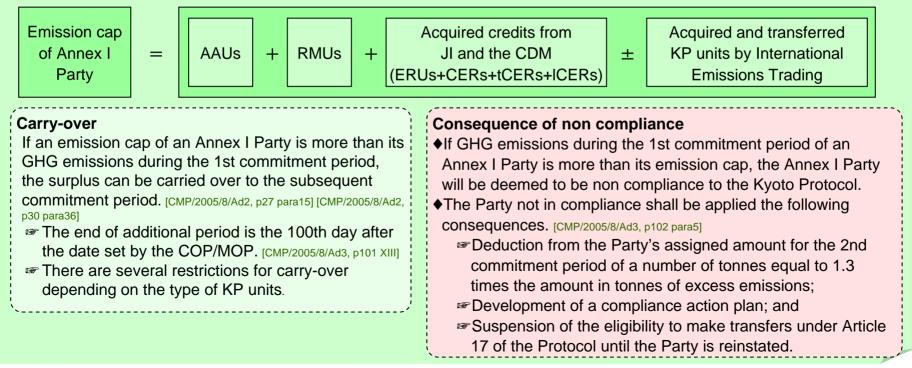
Total compliance cost

Trading cost

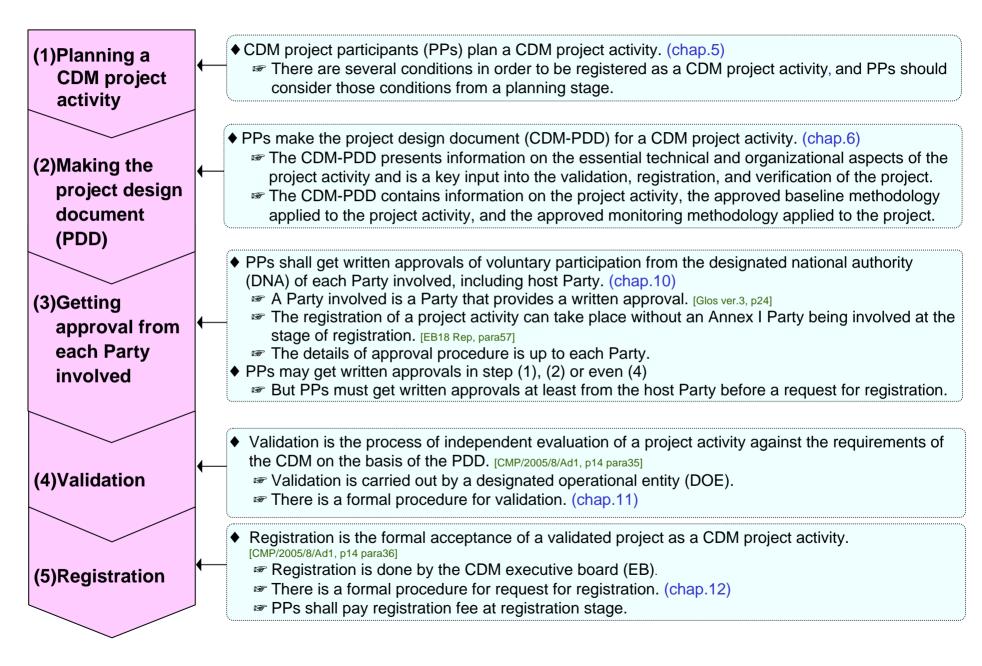
- Annex I Parties can trade following types of Kyoto Protocol units.
 - Same amount unit (AAU) [CMP/2005/8/Ad1, p7 para1(c)]
 - ⇒ Total amount of AAUs of an Annex I Party is calculated from its base year emissions and emission reduction target
 - Removal unit (RMU) [CMP/2005/8/Ad1, p7 para1(d)]
 - ⇒ Total amount of RMU of an Annex I Party is calculated from net removal of GHGs by afforestation and reforestation (A/R) activities [CMP/2005/8/Ad3, p5 para1(a)-(d)] and additional activities related to GHG removals by sinks [CMP/2005/8/Ad3, p5 para1(e)-(h)]
 - Figure Emission reduction unit (ERU) from JI
 - Certified emission reduction (CER) from the CDM
 - Temporary CER (tCER) and long-term CER (ICER)
 - $\Rightarrow tCER and ICER are issued from afforestation and reforestation (A/R) CDM project activities.[CMP/2005/8/Ad1, p62 para1(g)-(h)]$

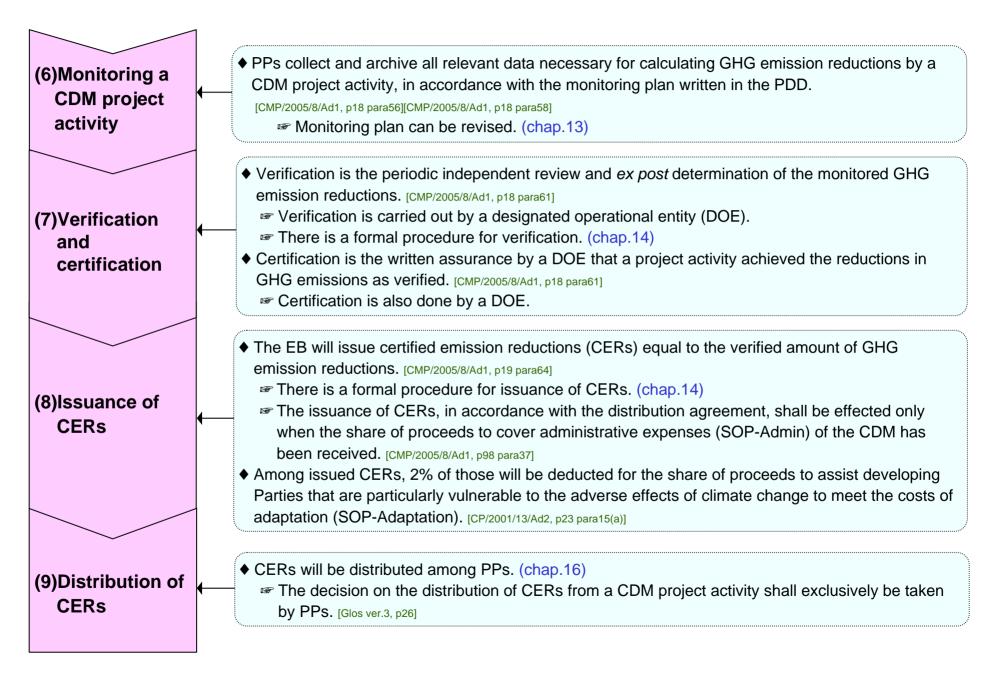
BOX: Compliance assessment

GHG emission cap of an Annex I Party at the end of the 1st commitment period is as follows.



3. CDM project cycle





4. CDM-related bodies

4-1. COP/MOP

The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP) [CMP/2005/8/Ad1, p7 para2-4]:

- France Has authority over and provides guidance to the CDM;
- Decides on the recommendations made by the EB on its rules of procedure, and in accordance with provisions of decision 17/CP.7 [CP/2001/13/Ad2 p20-49], the present annex and relevant decisions of the COP/MOP;
- Decides on the designation of operational entities (OEs) accredited by the EB;
- Reviews annual reports of the EB;
- Reviews the regional and subregional distribution of designated operational entities (DOEs) and CDM project activities;
- Assists in arranging funding of CDM project activities, as necessary.

BOX: Revision of the modalities and procedures for the CDM [CMP/2005/8/Ad1, p6 para4]

- Revision of the modalities and procedures for the CDM shall be decided in accordance with the rules of procedure of the COP/MOP.
 - ⇒ The 1st review shall be carried out no later than 1 year after the end of the 1st commitment period
 - ⇒ The 1st review shall be carried out based on recommendations by the EB and by the SBI drawing on technical advice from the SBSTA, as needed.
 - ⇒ Further reviews shall be carried out periodically thereafter.
- Any revision of the decision shall not affect clean development mechanism project activities already registered.

4-2. Designated National Authority (DNA)

- ◆ Parties participating in the CDM shall set up a designated national authority (DNA) for the CDM. [CMP/2005/8/Ad1, p12 para29]
- CDM project participants (PPs) shall receive written approval of voluntary participation from the DNA of each Party involved.
 - The written approval shall include confirmation by the host Party that the project activity assists it in achieving sustainable development. [CMP/2005/8/Ad1, p15 para40(a)]
 - The details of approval procedure is up to each Party.

4-3. CDM Executive Board (EB)

 The EB supervises the CDM, under the authority and guidance of the COP/MOP [CMP/2005/8/Ad1, p8 para5], and shall: Make recommendations to the COP/MOP on further modalities and procedures for the CDM and/or any amendments or additions to rules of procedure for the EB, as appropriate; Approve new methodologies related to, <i>inter alia</i>, baselines, monitoring plans and project boundaries; Review provisions with regard to simplified modalities, procedures and the definitions of small scale CDM (SSC) project activities, and if necessary, makes appropriate recommendations to the COP/MOP; Be responsible for the accreditation of operational entities (OEs), and make recommendations to the COP/MOP for the designation of OEs. Make any technical reports to the public and provide a period of at least 8 weeks for public comments on draft methodologies and guidance; Develop and maintain the CDM registry; Formally accept a validated project as a CDM project activity (registration); ICMP/2005/8/Ad1, p14 para36] Instruct to issue CERs for a CDM project activity to the CDM registry administrator; ICMP/2005/8/Ad1, p19 para66] Activities of the EB, and approved rules, procedures, methodologies and standards related to the CDM can be downloaded from .">http://cdm.unfccc.int/>. 	 Members of the EB [CMP/2005/8/Ad1, p9 para7-12] The EB comprises 10 members from Parties to the KP. ⇒ 1 member from each of the 5 UN regional groups, 2 other members from the Annex I Parties, 2 other members from the non-Annex I Parties, and 1 representative of the small island developing States. ⇒ The 5 regional groups of the UN are: Asia, Africa, Latin America, Eastern Europe, and the Western European and Others Group ⇒ As a result, 4 are from Annex I Parties and 6 are from non-Annex I Parties, unless 1 member from Asia is selected from Japan. ⇒ There is an alternate for each member of the EB. Members, including alternate members, of the EB are nominated by the relevant constituencies referred above, and be elected by the COP/MOP. ⇒ Vacancies shall be filled in the same way. Members are elected for a period of 2 years and be eligible to serve a maximum of 2 consecutive terms. ⇒ Terms as alternate members do not count. Terms as alternate members are elected initially for a term of 3 years, and other members and alternate members for a term of 2 years. Thereafter, the COP/MOP elects, every year, 5 new members, and 5 new alternate members, for a term of 2 years. The EB elects its own chair and vice-chair, with one being a member from an Annex I Party and the other being from a non-Annex I Party. ⇒ The positions of chair and vice-chair alternate annually between a member
	 from an Annex I Party and a non-Annex I Party. Meeting and decision of the EB [CMP/2005/8/Ad1, p10 para13-16] The EB meets as necessary but no less than 3 times a year. At least 2/3 of the members of the EB, representing a majority of members from Annex I Parties and a majority of members from non-Annex I Parties, must be present to constitute a quorum. Decisions by the EB is taken by consensus, whenever possible. If that is not possible, decisions shall be taken by 3/4 majority of the members present and voting at the meeting. Members abstaining from voting shall be considered as not voting. Meetings of the EB are open to attendance, as observers, except where otherwise decided by the EB.

4-4. Panels and Working Groups

- The EB may establish committees, panels or working groups to assist it in the performance of its functions. The EB shall draw on the expertise necessary to perform its functions, including from the UNFCCC roster of experts. In this context, it shall take fully into account the consideration of regional balance. [CMP/2005/8/Ad1, p10 para18]
- ◆ The EB has established following panels and working groups so far. ">http://cdm.unfccc.int/EB/Panels>

OM executive board (EB)	
Meth Panel (MP) (Methodologies Panel)	 The MP is responsible for recommendations to the EB on baseline and monitoring methodologies, revisions to the PDD, etc. [EB30 Anx3, para2-3] 2 members of the EB will act as Chair and vice Chair of the panel, respectively. In addition to the designated EE members, the panel shall be composed of 16 members. [EB30 Anx3, para5] [EB33 Rep, para34]
SSC WG (Working group for small-scale CDM project activities)	 The SSC WG is responsible for recommendations to the EB on baseline and monitoring methodologies for sma scale project activity, etc.[EB23 Anx20, para1] 2 members or alternate members of the EB will act as Chair and Vice-Chair of WG, respectively. In addition to the Chair and Vice-Chair, the WG shall be composed of 5 members, 2 of whom are members from the Meth Panel. [EB23 Anx20, para3]
AR WG (Working group on afforestation and reforestation project activities)	 The AR-WG is responsible for recommendations to the EB on baseline and monitoring methodologies for A/R CDM, revisions to the PDD for A/R CDM, etc. [EB23 Anx14, para2-3] 2 members or alternate members of the EB will act as Chair and Vice-Chair of the WG, respectively. In addition to the Chair and Vice-Chair, the WG shall be composed 8 members. [EB23 Anx14, para5] [EB31 Rep para48]
EB-RIT (Registration and Issuance Team)	 EB-RIT serves to prepare appraisals of requests for registration and issuance of CERs assessing whether their requirements are met and/or appropriately dealt with by DOEs for consideration by the EB. [EB29 Anx14, para5] The RIT is composed of not less than 20 members. [EB29 Anx14, para7]
CDM-AP (CDM accreditation panel)	 The CDM-AP is responsible for recommendations to the EB on the accreditation of an applicant OE, suspension withdrawal and/or re-accreditation of accreditation of a DOE, etc [EB23 Anx1, para4-5] The CDM-AP also carries out selecting the members of a CDM accreditation assessment team (CDM-AT). In addition to the designated EB members who act as chair and vice chair, the panel shall be composed of 7 members. [EB23 Anx1, para13] [EB33 Rep, para16]
CDM-AT (CDM accreditation assessment team	 The CDM-AT shall undertake an assessment of the applicant and/or DOEs and prepare an assessment report for the CDM-AP. A team shall be composed of a team leader and at least 2 team members chosen to serve in a team for an assessment at a time. [EB09 Anx1]

4-5. Designated Operational Entity (DOE)

- ♦ A DOE under the CDM Is either a domestic legal entity or an international organization accredited and designated, on a provisional basis until confirmed by the COP/MOP, by the EB.
 - F It validates and subsequently requests registration of a proposed CDM project activity.
 - It verifies emission reduction of a registered CDM project activity, certifies as appropriate and requests the EB to issue Certified Emission Reductions (CERs) accordingly.
- The list of DOEs is shown in http://cdm.unfccc.int/DOE/list/index.html.
- Upon request, the EB may allow a single DOE to perform all these functions within a single CDM project activity. [CMP/2005/8/Ad1, p12 para27(e)]

Procedure for accrediting OEs [EB34 Anx1, para3]

- The COP/MOP designates operational entities (OEs) based on a recommendation by the EB.
- The EB takes the decision whether or not to accredit an AE and recommend it to the COP/MOP for designation.
- The CDM-AP is responsible for preparing a recommendation to the EB regarding the accreditation of an AE based on assessment work conducted by a CDM-AT.
- The CDM-AP is also responsible for preparing recommendations regarding unscheduled surveillance, re-accreditation and accreditation for additional sectoral scope(s).
- ♦ The CDM-AP provides guidance to and approves the work plan of each CDM-AT.
- A CDM-AT, under the guidance of the CDM-AP, undertakes the detailed assessment of an AE and/or DOE. A CDM-AT shall be established by the CDM-AP which draws members from a roster of experts established by the EB for this purpose.

The validity of accreditation

- The accreditation of the OE for any "sectoral scope" shall be valid for 3 years from the date of accreditation by the EB. The designation by the COP/MOP shall be valid until the expiry date of the accreditation.
- A regular surveillance shall be undertaken within this 3-year-period. [EB34 Anx1, para70]
- The EB is authorized to conduct "spot-check" activities (i.e.unscheduled surveillance) of DOEs at any time. [EB34 Anx1, para89]

The terms used in DOE related official documents are: Applicant entity (<u>AE</u>)= once application has been duly submitted/subject to a procedure; Designated operational entity (<u>DOE</u>)= after designation by COP/MOP. [EB34 Anx1, p3 footnote]

Phasing of accreditation

[EB34 Anx1, para7-8]

- The accreditation of an OE may be undertaken in phases, both in functions and sectoral scope(s) and shall be recommended on the basis of sectoral groups.
- The phasing of accreditation depends on the successful completion of a witnessing activity for a particular sectoral group and size (large or small) of the project activity.
- The successful completion of a witnessing activity in one function (e.g. validation) for a group of sectoral scopes (sectoral group) may allow the entity to be eligible for accreditation for the other function (e.g. verification) in the same and concerned sectoral group(s).
- An entity can only be accredited for its both functions, i.e validation and verification/certification, if a witnessing activity in a sectoral scope has been successfully undertaken, on the basis of one large scale project activity.

4-5. DOE

Suspension or withdrawal of a DOE [CMP/2005/8/Ad1, p11 para21]

The EB may recommend to the COP/MOP to suspend or withdraw the designation of a DOE if it has carried out a review and found that the entity no longer meets the accreditation standards or applicable provisions in decisions of the COP/MOP.

- The EB may recommend the suspension or withdrawal of designation only after the DOE has had the possibility of a hearing.
- The suspension or withdrawal is with immediate effect, on a provisional basis, once the EB has made a recommendation, and remains in effect pending a final decision by the COP/MOP.
- The affected entity shall be notified, immediately and in writing, once the EB has recommended its suspension or withdrawal.
- The recommendation by the EB and the decision by the COP/MOP on such a case shall be made public.
 - ⇒ It is assumed that if the COP/MOP decides the affected DOE meets the accreditation standards, the DOE will recover from its suspension or withdrawal.

BOX: CDM validation and verification manual (CDM-VVM) [EB41 Rep para12]

The EB considered the draft VVM prepared by the secretariat. The EB held a detailed general discussion on the document, but due to time constraints could not finalize its consideration of the document and agreed to continue its discussion on the remaining parts of the document at its 42nd meeting.

Affect to registered CDM project activities by the suspension or withdrawal of designation of a DOE

[CMP/2005/8/Ad1, p11 para22-24]

- Registered project activities shall not be affected by the suspension or withdrawal of designation of a DOE unless significant deficiencies are identified in the relevant validation, verification or certification report for which the entity was responsible.
 There is no clear definition of "significant deficiencies."
- In this case, the EB shall decide whether a different DOE shall be appointed to review, and where appropriate correct, such deficiencies.
 - \Rightarrow Any costs related to the review shall be borne by the DOE whose designation has been withdrawn or suspended.
- If such a review reveals that excess CERs were issued, the DOE whose accreditation has been withdrawn or suspended shall acquire and transfer, within **30 days** of the end of review, an amount of reduced tonnes of CO₂ equivalent equal to the excess CERs issued, as determined by the EB, to a cancellation account in the CDM registry.
- Any suspension or withdrawal of a DOE that adversely affects registered project activities shall be recommended by the EB only after the affected PPs have had the possibility of a hearing.

4-6. Project Participants (PPs)

- ◆ Participation in a CDM project activity is voluntary. [CMP/2005/8/Ad1, p12 para28]
- ♦ A PP is (a) a Party involved, and/or (b) a private and/or public entity authorized by a Party involved to participate in a CDM project activity. [Glos ver.3, p26]

A Party involved

- A non-Annex I Party may participate in a CDM project activity if it is a Party to the Kyoto Protocol. [CMP/2005/8/Ad1, p12 para30]
- Party involved" is only considered a PP if this is clearly indicated in section A.3 of the PDD or, in case of registered projects, if the secretariat is explicitly informed of this in accordance with modalities of communication. [EB25 Rep, para110]

A private and/or public entity

- Private and/or public entities may only transfer and acquire CERs if the authorizing Party is eligible to do so at that time. [CMP/2005/8/Ad1, p13 para33]
- A written approval constitutes the authorization by a designated national authority (DNA) of specific entity(ies)' participation as project proponents in the specific CDM

project activity. [Glos ver.3, p6]

A change of PPs [Glos ver.3, p27]

- A change of PPs shall immediately be communicated to the EB through the secretariat in accordance with the modalities of communication.
- The indication of change shall be signed by all PPs of the previous communication and by all new and remaining PPs.
- Each new PP needs authorization, as required.

Withdraw of PPs [EB38 Rep para57]

In cases where PP(s) wish(es) to withdraw their participation from a registered CDM project activity, the secretariat shall ensure that all PPs have communicated their agreement to this withdrawal in writing, in accordance with the modalities of communication. (chap.4-7)

Participation by a fund [Glos ver.3, p7]

Multilateral funds do not necessarily require written approval from each participant's DNA. However those not providing a written approval may be giving up some of their rights and privileges in terms of being a Party involved in the project.

4-7. Modalities of communication

Procedures for public communication with the EB [EB31 Anx37]

- Relevant communications received by the EB which are not in response to a call for input (hereinafter referred to as unsolicited communications) may only be taken into consideration at its next meeting if received before the documents submission deadline (2 weeks prior to the meeting).
 - Any unsolicited communication received after this deadline would be considered, as appropriate, at a subsequent meeting.
- The secretariat shall acknowledge receipt of unsolicited communications addressed to the EB and make them available to the EB through the EB's extranet. In consultation with the Chair of the EB, the Secretary of the EB shall initiate action including consultation with EB, as needed, and answer unsolicited communications on behalf of the Chair, as appropriate.
- The Chair of the EB shall assess if an unsolicited communication and the response is to be sent in addition via listserv to the EB.
- Unsolicited communications should be addressed to the Chair of the EB and send to the UNFCCC secretariat via email (cdminfo@unfccc.int or secretariat@unfccc.int) or fax (number +49. 228. 815.1999).
- If a member or alternate member of the EB, in that capacity, receives an unsolicited communication, he/she shall forward it to the secretariat, copying the sender of the unsolicited communication, for processing as per the above. The same shall apply for submissions received by members of panels or working groups.

Modalities of communication of PPs with the EB [Glos ver.3, p21]

- The modalities of communication between PPs and the EB are indicated at the time of registration by submitting a statement signed by all PPs.
- All official communication from and to PPs, after a request for registration is submitted by a DOE, shall be handled in accordance with these modalities of communication.

BOX: Confidential/proprietary information

[Glos ver.3, p13]

- Information obtained from PPs marked as proprietary or confidential shall not be disclosed without the written consent of the provider of the information, except as required by national law.
 - ⇒ Information used to determine additionality, to describe the baseline methodology and its application, and to support an environmental impact assessment shall not be considered as proprietary or confidential.
- PPs shall submit documentation that contains confidential and proprietary information in one marked up version where all confidential/proprietary parts shall be made illegible by the PPs, and a second version containing all information which shall be treated as strictly confidential by all handling this documentation.

5. Conditions for CDM projects

• When planning a CDM project activity, it is necessary to keep in mind following points:

- The purpose of the CDM shall be to assist non-Annex I Parties in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Annex I Parties in achieving compliance with their commitments. [KP Art.12 para2]
 - ⇒ It is the host Party's prerogative to confirm whether a CDM project activity assists it in achieving sustainable development. [CP/2001/13/Ad2, p20]
- A CDM project activity is additional if GHG emissions are reduced below those that would have occurred in the absence of the registered CDM project activity; [CMP/2005/8/Ad1, p16 para43]
- Annex I Parties are to refrain from using CERs generated from nuclear facilities to meet their quantified GHG emissions reduction targets; [CP/2001/13/Ad2, p20]
- The eligibility of land use, land-use change and forestry project activities under the CDM is limited to afforestation and reforestation (A/R); [CP/2001/13/Ad2, p22 para7(a)]
- ♦ It is necessary to prepare a project design document (PDD) in order to be registered as a CDM project activity.
 - The contents of PDD is described in Attachment 1-3.

Public funding for CDM projects

Public funding for CDM projects from Annex I Parties is not to result in the diversion of official development assistance

- (ODA) and is to be separate from and not counted towards the financial obligations of Annex I Parties. [CP/2001/13/Ad2, p20]
- ⇒Annex I Parties shall provide an affirmation that such funding does not result in a diversion of ODA and is separate from and is not counted towards the financial obligations of those Parties. [PDD GL ver.7, p9]
- ⇒ There is also the document "ODA Eligibility of Expenditures under the Clean Development Mechanism" which was endorsed at the DAC High Level Meeting on 15-16 April 2004. [DAC/CHAIR(2004)4/FINAL]

BOX: CDM project activities under a programme

of activities [CMP/2005/8/Ad1, p97 para20]

- Local/regional/national policy or standard cannot be considered as a CDM project activity
- But that project activities under a programme of activities can be registered as a single CDM project activity provided that approved baseline and monitoring methodologies are used that, inter alia, define the appropriate boundary, avoid double counting and account for leakage, ensuring that the emission reductions are real, measurable and verifiable, and additional to any that would occur in the absence of the project activity. (chap.20)

BOX: Carbon dioxide capture and storage (CCS)

The COP/MOP decided to requests the EB to continue to consider proposals for new methodologies, including the PDD for CCS in geological formations as CDM project activities. Approval of such methodologies by the EB can occur only after further guidance from the COP/MOP. [CMP/2006/10/Ad1, p6 para19]

The COP/MOP requested the SBSTA, at its 27h session, to prepare recommendations on CCS in geological formations as CDM project activities for consideration by COP/MOP3, with a view to taking a decision at theCOP/MOP4. [CMP/2006/10/Ad1, p7 para24]

Examples of guidance and clarifications regarding methodological issues			
Guidance on transfer of know- how and training [EB23 Rep, para80] The EB agreed that transfer of know-how and training, as such, cannot be considered as CDM project activities. The eligibility of project activities that are a result of the transfer of know-how and training shall be based only on measurable emission reductions which are directly attributable to these project activities.	Guidance on bunker fuels [EB25 Rep, para58] The EB agreed to confirm that the project activities/parts of project activities resulting in emission reductions from reduced consumption of bunker fuels (e.g. fuel saving on account of shortening of the shipping route on international waters) are not eligible under the CDM.	Project activities that result in emission reductions due to the use/consumption of a product in the project activity [EB36 Anx16] The EB clarified that project activities that result in emission reductions due to the use/consumption of a product produced in the project activity are only eligible as CDM project activity if: (i) the users/consumers of the product are included in the project boundary; and (ii) monitoring takes place of the actual use/consumption and location of the product used/consumed by consumers. In such situations sampling can be used as a monitoring method for actual use/consumption and location of the product.	

Guidance regarding the treatment of "existing" and "newly built" facilities [EB8 Anx1, para10]

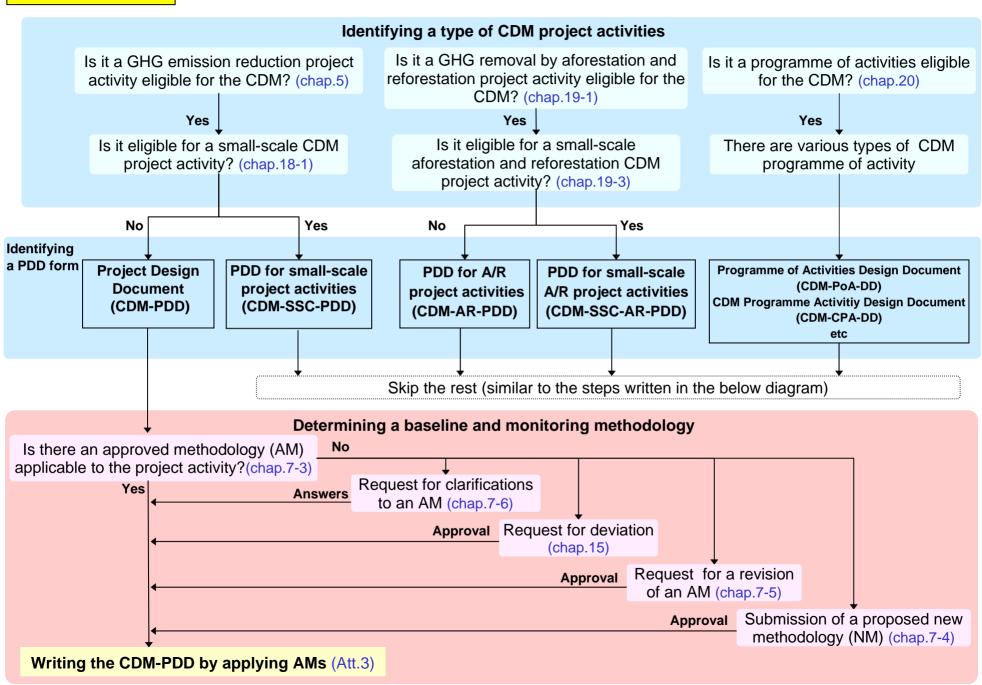
If a proposed CDM project activity seeks to retrofit or otherwise modify an existing facility, the baseline may refer to the characteristics (i.e. emissions) of the existing facility only to the extent that the project activity does not increase the output or lifetime of the existing facility. For any increase of output or lifetime of the facility which is due to the project activity, a different baseline shall apply.

Definition of thresholds in terms of power density for hydroelectric power plants [EB23 Anx5]

Noting the scientific uncertainties concerning GHG emissions from reservoirs and that these uncertainties will not be resolved in the short term, a simple and transparent criteria, based on thresholds in terms of power density (installed power generation capacity divided by the flooded surface area: W/m²), are to be used to determine the eligibility of hydroelectric power plants for CDM project activities. The thresholds are as follows:

- ☞ Power densities less than or equal to 4 W/m² cannot use current methodologies;
- Power densities greater than 4 W/m² but less than or equal to 10 W/m² can use the currently AMs, with an emission factor of 90 g-CO₂eq/kWh for project reservoir emissions;
- Power densities greater than 10 W/m² can use current AMs and the project emissions from the reservoir may be neglected.

6. Making PDD



PDD and methodology related forms

		Normal-scale CDM project activity		Small-scale CDM project activity	
	PDD	CDM-PDD ver.3.1 (Att.1-1)	CDM Project Design Document	CDM-SSC-PDD ver.3 (Att.1-2)	CDM Project Design Document for Small-Scale project activities
Emission Reduction				CDM-SSC-Bundle ver.2 (Att.1-3)	Form for submission of bundled Small Scale project activities form
		CDM-PoA-DD ver.1 (Att.1-4)	Programme of Activities Design Document	CDM-SSC-PoA-DD ver.1	Small-Scale CDM Programme of Activities Design Document
		CDM-CPA-DD ver.1 (Att.1-5)	CDM Programme Activitiy Design Document	CDM-SSC-CPA-DD ver.1	Small-Scale CDM Programme Activity Design Document
	N 4 a t la c	F-CDM-AM-Subm ver.1	Form for submission of queries from DOEs to the MP regarding the application of approved methodologies		Form for Submissions on Small Scale Methodologies and Procedures
	Metho dology	F-CDM-AM-Rev ver.1	Form for submission of requests for revisions of approved methodologies to the MP		
		CDM-NM ver.3.1	CDM Proposed New Methodology: Baseline and Monitoring	F-CDM-SSC-NM ver.1	Form for proposed New Small- Scale Methodologies
PDD		CDM-AR-PDD ver.4	CDM Project Design Document for A/R project activities	CDM-SSC-AR-PDD ver.2	Project Design Document Form for Small-Scale A/R project activities
	PDD	CDM-PoA-DD-AR ver.1	Programme of Activities Design Document Form for A/R project activities	CDM-PoA-DD-SSC-AR ver.1	Programme of Activities Design Document Form for SSC-AR project activities
A/R (chap.19)		CDM-CPA-DD-AR ver.1	CDM Programme Activity Design Document Form for A/R project activities	CDM-CPA-DD-SSC-AR ver.1	CDM Programme Activitiy Design Document form for SSC-AR project activities
	Metho dology	F-CDM-AR-AM-Subm ver.1	Form for submission of queries from DOEs to the AR WG regarding the application of Approved A/R Methodologies		
		F-CDM-AR-AM-Rev ver.1	Form for submission of requests for revisions of Approved Methodologies to the AR WG		
		CDM-AR-NM ver.3	CDM Proposed New Methodology: Baseline and Monitoring for A/R		
(chap.15)	Deviation (chap.15) F-CDM-DEV ver.2 Form for submission of requests for deviation PDD: http://cdm.unfccc.int/Reference/PDDs. Forms/PDDs/index.html http://cdm.unfccc.int/Reference/PDDs. Forms/PoA/index.html				

PDD: http://cdm.unfccc.int/Reference/PDDs_Forms/PDDs/index.html http://cdm.unfccc.int/Reference/PDDs_Forms/PoA/index.html Methodology: http://cdm.unfccc.int/Reference/PDDs_Forms/Methodologies/index.html Deviation: [EB24 Anx30]

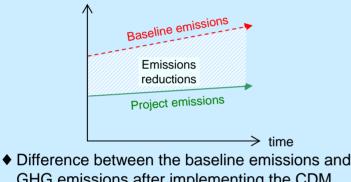
CDM in CHARTS ver.6.0 August 2008

7. Baseline

7-1. Concept of the baseline and additionality

The baseline (scenario and emissions) for a CDM project activity is the scenario that reasonably represents GHG emissions that would occur in the absence of the proposed project activity. [CMP/2005/8/Ad1, p16 para44]

GHG emissions



GHG emissions after implementing the CDM project activity (project emissions) is emission reductions.

- A baseline (scenario and emissions) shall be established:
- (a)By PPs in accordance with provisions for the use of approved and new methodologies;
- (b)In a transparent and conservative manner regarding the choice of approaches, assumptions, methodologies, parameters, data sources, key factors and additionality, and taking into account uncertainty;
- (c)On a project-specific basis;
- (d)In the case of small-scale CDM project activities, in accordance with simplified procedures developed for such activities (chap.18-2);
- (e)Taking into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project Sector. [CMP/2005/8/Ad1, p16 para45]
- Before calculating baseline emissions, it is necessary to identify baseline scenarios.
- A baseline (emissions) shall cover emissions from all gases, sectors and source categories within the project boundary. [CMP/2005/8/Ad1, p16 para44]
- A CDM project activity is additional if GHG emissions are reduced below those that would have occurred BOX: Wording in the absence of the registered CDM project activity. [CMP/2005/8/Ad1, p16 para43]
 - ⇒ The DOE shall review the PDD to confirm that the project activity is expected to result in a reduction in GHG emissions that are additional to any that would occur in the absence of the proposed project activity. [CMP/2005/8/Ad1, p14 para37(d)]
- ♦PPs have to write explanation of how and why this project activity is **additional** and therefore not the baseline scenario in accordance with the selected baseline methodology. [PDD GL ver.7, p12]
 - \Rightarrow If the starting date of the project activity is before the date of validation, provide evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity. This evidence shall be based on (preferably official, legal and/or other corporate) documentation that was available at, or prior to, the start of the project activity (chap.8-1). [PDD GL ver.7, p12]
- ♦"The tool for the demonstration and assessment of additionality" provides a general framework for demonstrating and assessing additionality. PPs may also propose other tools for the demonstration of additionality. [EB22 Anx8 para1]

PPs shall refrain from providing glossaries or using key terminology not used in the COP documents and the CDM glossary (environmental/investment additionality). [EB09 Anx3, para3]

7-2. Baseline scenario

- The baseline scenario for a CDM project activity is the scenario that reasonably represents GHG emissions that would occur in the absence of the proposed project activity. [Glos ver.3, p10]
- Different scenarios may be elaborated as potential evolutions of the situation existing before the proposed CDM project activity.
 - The continuation of a current activity could be one of them;
 - Implementing the proposed project activity may be another;
 - F And many others could be envisaged.
- ♦ Baseline methodologies shall require a narrative description of all reasonable baseline scenarios.
- ♦ To elaborate the different scenarios, different elements shall be taken into consideration.
 - For instance, the PPs shall take into account national / sectoral policies and circumstances, ongoing technological improvements, investment barriers, etc.
- The baseline scenario may include a scenario where future GHG emissions are projected to rise above current levels, due to the specific circumstances of the host Party. [CMP/2005/8/Ad1, p16 para46]

Clarifications on the treatment of national and/or sectoral policies and regulations in determining a baseline scenario The EB agreed to differentiate the following 2 types of national and/or sectoral policies that are to be taken into account when establishing baseline scenarios: [EB22 Anx3]

Type E+ That give comparative advantages to more emissionsintensive technologies or fuels.

Only national and/or sectoral policies or regulations that have been implemented before adoption of the Kyoto Protocol (11 December 1997) shall be taken into account when developing a baseline scenario.

If such national and/or sectoral policies were implemented since the adoption of the Kyoto Protocol, the baseline scenario should refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place. **Type E-** That give comparative advantages to less emissionsintensive technologies (e.g. public subsidies to promote the diffusion of renewable energy or to finance energy efficiency programs).

- National and/or sectoral policies or regulations that have been implemented since the adoption by the COP of the CDM M&P(11 November 2001) need not be taken into account in developing 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).

7-3. Baseline methodology

- Baseline emission under the selected baseline scenarios shall be calculated by PPs in accordance with approved methodologies (AMs) or new methodologies (NMs).
- ♦ No methodology is excluded a priori so that PPs have the opportunity to propose any methodology. [Glos ver.3, p8]

A baseline methodology approved by the EB is publicly available along with relevant guidance on the UNFCCC CDM website (http://unfccc.int/cdm). [Glos ver.3, p9] © DOEs can submit queries regarding the applicability of approved methodologies. If a DOE determines that a proposed project activity intends to use a **new baseline methodology**, it shall, prior to the submission for registration of this project activity, forward the proposed methodology to the EB for review, i.e. consideration and approval, if appropriate. [EB32 Anx13, para2]

There is "Technical Guidelines for the Development of New Baseline and Monitoring Methodologies version 01". [EB24 Anx16]

Baseline approach (para 48 of the CDM M&P) [Glos ver.3, p8][CMP/2005/8/Ad1, p16 para48] A baseline approach is the basis for a baseline methodology. The EB agreed that the 3 approaches be the only ones applicable to CDM project activities:

(a)Existing actual or historical emissions, as applicable; or (b)Emissions from a technology that represents an economically attractive course of action, taking into account barriers to investment; or	
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BOX: Proposed project activities applying more than one methodology [EB08 Anx1, para6]
 If a proposed CDM project activity comprises different "sub-activities" requiring different methodologies, PPs may forward the proposal using one CDM-PDD but shall complete the methodologies sections for each "sub-activity".

BOX: Temporarily result in "negative emission reductions" [EB21 Rep, para18]

- In some cases and for some methodologies, project activities may temporarily result in "negative emission reductions" in a particular year, for example due to poor performance or due to leakage effects outweighing emission reductions.
- In these cases, proposed NMs should stipulate that if a project activity temporarily results in "negative emission reductions", any further CERs will only be issued when the emissions increase has been compensated by subsequent emission reductions by the project activity.

7-4. Procedures for the submission of a proposed new methodology (NM) [EB37 Anx3][Version 13 / 1 February 2008]

- (1) The new baseline and monitoring methodologies (NMs) shall be proposed and approved together. The form "CDM-NM" is to be used to propose a NM, accompanied by a draft PDD with sections A-C completed, including relevant annexes. The CDM-NM form for several NMs may be submitted together with the same CDM-PDD for several components of a proposed project. [EB24 Anx16, para1]
- (2) A DOE/AE may voluntarily undertake a preassessment of a proposed NM before submitting it. If a voluntary pre-assessment has been undertaken, no pre-assessment by the Meth Panel, as referred in (5), is needed.

The submitted methodology may be in such case be considered as received after (3) and (4) is completed.

- (3) A fee of USD 1,000 shall be charged to PPs when submitting a proposed NM for regular project activities.
 - If a methodology is approved and the project activity for which it was developed is registered, the registration fee shall be lowered by that amount.
 - If the proposed methodologies are incorporated in consolidations or in existing AMs, the fee shall be refunded.
 - Not applicable to methodologies for small-scale and afforestation and reforestation project activities.
- (4) The secretariat checks that documentation provided by the DOE is complete and the proof of payment of the submission fee has been received. The secretariat shall prepare a draft pre-assessment using the form "F-CDM-NMas" to assess the quality of the submission and forward it along with the documentations from the PP to one member of the MP for consideration.

- (5)This member of the MP is to assess the quality of the submission and grade it as being 1 and 2 in accordance with the criteria for pre-assessment as contained in the form (F-CDM-NMas).
 - If the grade is 2, the documentation is to be sent back to the PPs who may resubmit it as a proposed NM, along with a fee of USD 1000.
 - If the grade is 1, the documentation is <u>considered as received by the EB</u>, and be forwarded by the secretariat for consideration of the EB and the MP.

The date of receipt of the proposed NM

- (6) At the same time, the secretariat makes the proposed NM publicly available on the UNFCCC CDM web site and invite public inputs, using the form "F-CDM-NMpu", for a period of **15 working days**. Comments are forwarded to the MP at the moment of receipt and made available to the public at the end of the 15 working day period.
- (7) Upon receipt of a proposed NM, 4 members of the MP, one as lead who is responsible for presenting the case at the meeting, review the draft recommendation prepared by the secretariat.
 - Members are selected on a rotational basis in alphabetical order to independently.
 - The secretariat is responsible for compiling different inputs, and prepare draft recommendations for consideration by the MP.
 - The secretariat may request the PPs to make additional technical information necessary with a deadline for responding.

(8) The Chair and the Vice-Chair of the MP, with the assistance of the secretariat and in consultation with the 4 selected MP members, shall, **no later than 7 working days** after the receipt of the proposed NM, select 2 experts from a roster of experts who are to undertake a desk review to appraise the validity of the proposed NM, being one the lead reviewer. The two reviewers should provide inputs independently.

(9) Each desk reviewer forwards his/her recommendation to the MP independently, wherever possible, within **10 working days** after having received a proposed NM using lead expert desk review form "F-CDM-NMex_3d" and second expert desk review form "F-CDM-NMex_2d".

(10)The MP prepares its preliminary recommendation regarding the approval of the proposed NM to the EB using the forms "F-CDM-NMmp" and "F-CDM-NMSUMmp".

- Prior to preparing the preliminary recommendation, the secretariat may request on behalf of the MP, copying the selected members and the DOE, the PPs to make available additional technical information necessary to further clarify or assist in analyzing the proposed NM with a deadline for response.
- Any additional technical information provided by PPs to the MP are made available to the EB and to the public soon after its receipt by the secretariat.

(11)The MP, through the secretariat, and via the DOE, forwards its preliminary recommendation to PPs.

CDM in CHARTS ver.6.0 August 2008

7-4. Procedures for the submission of a proposed NM

[EB37 Anx3][Version 13 / 1 February 2008]

- (12) Within a timeframe stipulated by the Chair of the MP (but not exceeding 4 weeks), after the receipt of the preliminary recommendation of the MP by the PPs, the PPs may submit (copying the DOE), clarifications to the MP, through the secretariat, on technical issues concerning the proposed NM raised in the preliminary recommendation by the MP. Technical clarifications provided by the PPs shall include the revisions, in the form "CDM-NM" in a highlighted form.
 - Clarifications provided by the project participants shall be made available to the EB and to the public soon after they have been received by the secretariat.
- (13) If PPs provide clarifications related to the preliminary recommendation by the MP, the MP considers these clarifications at its next meeting and prepare its final recommendation to the EB.
 - The final recommendation shall be forwarded to the EB and made publicly available.
 - If PPs do not provide clarification related to preliminary recommendation by the MP within the timeframe of 3 months, the case will be considered as withdrawn.
- (14) The EB shall consider a proposed NM **at the next meeting** following the receipt of the final recommendation regarding the approval ("A" case) or non-approval ("C" case) of the proposed NM by the MP.

Once approved by the EB, it shall make the approved methodology (AM) publicly available and the DOE may proceed with the validation of the project activity and submit the PDD for registration.

BOX: Timeline of analysis/ recommendation by the MP and consideration/approval by the EB

- A proposed NM shall be available to the MP at least 10 weeks prior to its next meeting.
- In case more than 10 proposed NMs are submitted by the deadline, the Chair of the MP ascertains how many proposals are analyzed at the next MP meeting and decide to postpone the analysis of some submissions.
- The MP makes a recommendation to the EB, if possible at its next meeting. The MP shall finalize its recommendation to the EB within 2 meetings of the MP.
- Submissions are treated on a "First come first served" basis.
- The EB may decide to change a deadline for submissions of proposed NMs taking into account the workload of the MP
- The EB shall expeditiously, if possible at its next meeting but not later than 4 months after the date of receipt of the proposed NM, review the proposed NM in accordance with the CDM M&P.

- There is the guidance, "Modifications to the methodologies consideration process," which sets priorities and timelines required for the approval of CDM methodologies, tools and guidance. It aims to ensure the effective use of human resources, through an equitable distribution of workload amongst the Panel and Working Groups of the EB while introducing performance based incentives. [EB32 Anx12]
- The EB clarified that methodologies are approved for application both to CDM project activity and to CDM programme activities (CPA) under a Programme of Activities (PoA) (chap.20). The EB also clarified that proposed NMs submitted for consideration by the EB should clearly define the activity to which the proposed methodology is applicable. [EB35 Rep. para15]
- There is a "Procedures for submission and consideration of proposed new methodologies for Afforestation and Reforestation of project activities under the CDM (version 07)". [EB37 Anx4]

7-5. Procedures for the revision of an approved methodology (AM) or tool

Request for revisions to AM [EB30 Anx1, para5-9]

- The revision of AM may be carried out in response to requests by a PP, relevant stakeholders, the EB, the MP or WGs in accordance with the latest version of the procedures.
- ♦ A request for revision is suited for situations where:
 - An AM is not applicable to a project activity but the project activity is broadly similar to the project activities to which the AM is applicable;
 - ⇒ Similarity is based on the nature (technology/measure) of the project activity and sources of the emissions affected by the project activity. For example, the AM may not be applicable as the source of emissions affected by the project activities are the same but the technology/measure used in the project activity is not covered under the applicability conditions.
 - Or the procedures provided in the methodology for estimating emissions from sources are not applicable because of slight variations in the approach, flow of events or structure chosen in the project activity.
- ◆ Should no AM be appropriate, then a revision to an AM could be requested.
- In this case significant changes are required to the AM for it to be applicable to all possible project scenarios, without which *inter alia*:

There is "Guidance on criteria for consolidations and revision of methodologies". [EB27 Anx10]

⇒ The application of the methodology to the proposed project activity would be inappropriate, resulting in an incorrect definition of the project boundary, double counting, an inaccurate account of leakage, emission reductions that are either not real, measurable, verifiable or additional to those that would occur in the absence of the project activity.

The request for revisions shall not include changes to the AM that would result in the exclusion, restriction, narrowing of the applicability conditions of the AMs for other project activities. Should the request result in the above the PP is advised to submit a NM.

BOX: In case the revision results in the withdrawal of existing AMs

- if the revision results in the withdrawal of one or more AMs, the withdrawal shall not affect
 - ⇒ (i) registered CDM project activities during their crediting periods; and
 - ⇒ (ii) project activities that have been published for public comments for validation using the previously AM or tool, so long as the project activity is submitted for registration within 8 months of the effective date of the revision. [EB35 Anx13, para17]

7-5. Procedures for the revision of an AM or tool

[EB35 Anx13 para1-16][Version 9]

(1) PPs who intend to propose a revision to an AM or tool referred to in a methodology for the EB's consideration and approval submit to a DOE the following: (a) a form F-CDM-AM-Rev; (b) a draft revised version of the AM or tool referred to in a methodology highlighting proposed changes; and (c) a draft project PDD with sections A to C completed, including relevant annexes.

(2)Once it has checked that the above requirements are met and documentation is complete, the DOE transmits the documentation to the secretariat.

(3)The secretariat forwards the documentation to the EB and the MP after checking that the DOE has properly filled the form F-CDM-AM-Rev, (b) submitted complete documentation and preparing draft responses. The date of transmission by the secretariat to the EB is to be considered as the date of receipt of a proposed revision to an AM by the EB.

(4) Depending on the proposed revision of a methodology, the MP and or the EB may decide to request the secretariat to invite public inputs on the proposed revision for a period of **15 working days**.

(5) One member of the MP, under the guidance of the Chair of the Panel, is selected to review the secretariat's draft recommendations. If more detailed consideration is required, the Chair may select an additional member. (6) The MP shall consider the proposed revision at its next
 meeting, if feasible and if received by the secretariat at least 6 weeks before the meeting.

(7) The MP recommends, based on substantiated justification, a revision to an AM or tool referred to in a methodology or the continued validity of the AM, possibly with minor revisions and/or minor corrections.

(8) The MP may also recommend the revision of an AM based on the experience gained through the examination of submissions of NMs in order to ensure a consistent approval process. Information on a proposal for revision of an AM shall be made available in the UNFCCC CDM web site and forwarded to the EB via list serve and to the public through the CDM news facility.

(9) The MP recommends to the EB whether to accept the request for revision and if it recommends approval, it shall submit a draft revised version of the AM to the EB.

(10) The EB shall consider the recommendations for revision to AMs or tool referred to in a methodology by the MP at its next meeting.

(11) If the EB approves the revision of an AM, this methodology replaces the previous AM. The revision is deemed effective **14 calendar days** after the date of publication on the UNFCCC website (24h00 GMT), which shall be **within 5 calendar days** after the EB's publication of the report.

The following exception applies to these procedures: If the COP/MOP requests the revision of an AM, no CDM project activity may use that methodology. The EB shall request the panel/working group to revise the methodology or tool referred to in a methodology, as appropriate, taking into consideration any guidance received from the EB.
 The EB agreed that these procedures shall apply *mutatis mutandis* to AMs for A/R project activities but subsequently approved separate procedures, which supersede these procedures for small scale methodologies only. [EB35 Anx13, para3, 6]

CDM in CHARTS ver.6.0 August 2008

25

BOX: Revision of an AM

Any revision to an AM or tool referred to in a methodology shall only be applicable to project activities registered after the revision and shall not affect (i) registered CDM project activities during their crediting period; and (ii) project activities that have been published for public comments for validation using the previous AM or tool, so long as the project activity is submitted for registration within 8 months of the effective date of the revision.

[EB35 Anx13, para16-17]

- If the EB considers that the possible revision of the methodology could have significant implications for the use of the methodology, the EB may agree to suspend the use of the methodology, by putting it "on hold", with immediate effect.
- Project activities using such a methodology that have not been submitted for registration within 4 weeks after the methodology has been put "on hold", will not be permitted to use the methodology until the EB has made a decision with respect to the methodology.
 If the EB puts a methodology "on hold", a revised methodology should be approved no later than the 3rd

be approved **no later than the 3rd EB meeting** after the methodology has been put "on hold". [EB35 Anx13, para18-20]

7-6. Procedures for request for clarifications to approved methodologies (AMs)

When to request for clarifications to AM

[EB30 Anx1, para3-4]

- The clarifications to approved methodologies (AMs) may be carried out in response to requests by a project participant (PPs) or relevant stakeholders or may be carried out in response to requests recommended by the EB, MP or WGs in accordance with the latest version of the procedures.
- The procedure for request for clarification is provided to enable the DOEs, and PPs via the DOE, to seek clarification on the applicability of an AM, clarification on various procedures provided in an AM, inter alia for identifying the baseline scenario, demonstrating additionality, estimating baseline emissions, project emissions, leakage, etc. and in clarifying monitoring data and procedures.
- Should a methodology be unclear or ambiguous in this regard requiring further background information as to the conditions under which it is to be applied, PPs are advised to submit a request for clarification.

[EB37 Anx5][Version 5]

(1) If DOEs wish to submit queries regarding the applicability of approved methodologies (AMs) to the Meth Panel (MP), they shall complete the form "F-CDM-AM-Subm" for submission of queries regarding the application of AMs and submit it to the secretariat.

PPs wishing to seek clarification on the applicability of an AM, may do so by submitting to the DOE the completed form "F-CDM-AM-Subm". The DOE shall submit the PP's request at the earliest possible time but no later than 5 working days, after the receipt of the request from PP, to the secretariat.

- (2) The secretariat shall forward the query to the MP listserv, post the query in a common extranet page for the DOEs and MP, forward it to the EB and make it publicly available through the UNFCCC CDM web site.
- (3) A query regarding the application of an AM shall be available to the MP at least **6 weeks prior to its next meeting** in order to be considered by the meeting.

The Chair shall assess when queries are to be considered by the MP depending on the workload of the MP.

- (4) The chair shall select one member as a reviewer. For cases that require more detailed consideration, the Chair may select an additional member.
- (5) Should the secretariat, while preparing the draft response, assess that the clarification is simple enough so at to not require the MP's consideration, it shall forward the proposal to the 2 appointed member(s) for early consideration.

If there is no agreement or endorsement, the request will be considered at the MP meeting.

- (6a) All responses to requests for clarification recommended by the MP are considered as agreed upon by the EB, in taking note of the MP's report, unless otherwise revised by the EB at its subsequent meeting.
- (7) Draft recommendations, which shall be considered by the MP, shall be made available for the MP's consideration at least 1 week before the next MP meeting. The secretariat shall prepare the draft responses to requests for clarifications for discussion by the MP meetings. The recommendation and answer shall be drafted using form "F-CDM-AM-Subm".
- (8) Once the MP agrees on a final recommendation, the secretariat shall: Forward the final response to the DOE and the EB,
 - and make it publicly available on the UNFCCC CDM web site in the corresponding section and in the history web page of the approved methodology concerned.

(6b)If both the appointed panel members agree to the draft proposal within 2 days, the secretariat shall seek the approval of the Chair of the MP within 1 day and upon endorsement shall forward the final response to the DOE and post it on the UNFCCC CDM web page for methodology clarifications. The response shall be reflected in the report of the

meeting of the MP immediately following the publication of the response.

8. Starting date and crediting period

8-1. Starting date of a CDM project activity

The definition and clarification of starting date of a CDM project activity [EB41 Rep, para67]

- The start date of a CDM project activity is "the earliest date at which either the implementation or construction or real action of a project activity begins".
 - The CDM-PDD should contain not only the date, but also a description of how this start date has been determined, and a description of the evidence available to support this start date. Further, it should be noted that if this starting date is earlier than the date of publication of the CDM-PDD for global stakeholder consultation by a DOE, Section B.5 of the CDM-PDD should contain a description of how the benefits of the CDM were seriously considered prior to the starting date. [EB41 Anx12, p17]
- The EB further clarified that: "In light of the above definition, the start date shall be considered to be the date on which the PP has committed to expenditures related to the implementation or related to the construction of the project activity.
 - This, for example, can be the date on which contracts have been signed for equipment or construction/operation services required for the project activity.
 - Minor pre-project expenses, e.g. the contracting of services /payment of fees for feasibility studies or preliminary surveys, should not be considered in the determination of the start date as they do not necessarily indicate the commencement of implementation of the project.
- For those project activities which do not require construction or significant pre-project implementation (e.g. light bulb replacement) the start date is to be considered the date when real action occurs.
 - In the context of the above definition, pre-project planning is not considered "real action".
- The EB further noted that there may be circumstances in which an investment decision is taken and the project activity implementation is subsequently ceased. If such project activities are restarted due to consideration of the benefits of the CDM the cessation of project implementation must be demonstrated by means of credible evidence such as cancellation of contracts or revocation of government permits.
 - Any investment analysis used to demonstrate additionality shall comply with the requirements that the investment analysis should reflect the economic decision making context at point of the decision to recommence the project. [EB41 Anx45, para7]

8-1. Starting date of a CDM project activity

Serious consideration of the CDM in the project decision making process [EB41 Anx12, p12]

- If the starting date of the project activity is before the date of validation, PPs shall provide evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity. This evidence shall be based on (preferably official, legal and/or other corporate) documentation that was available at, or prior to, the start of the project activity.
 - In such cases PPs shall provide an implementation timeline of the proposed CDM project activity. The timeline should include, where applicable, the date when the investment decision was made, the date when construction works started, the date when commissioning started and the date of start-up (e.g. the date when commercial production started).
 - In addition to this implementation timeline PPs shall provide a timeline of events and actions which have been taken to achieve CDM registration, with description of the evidence used to support these actions. These timelines will allow the DOE to assess the serious consideration of the CDM in the project decision making process and project implementation.

Guidance on the demonstration and assessment of prior consideration of the CDM (version 01) [EB41 Anx46]

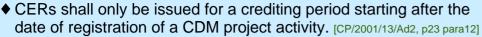
New project activities

- The EB decided that for project activities with a starting date on or after 2 August 2008, the PP must inform a Host Party DNA and/or the UNFCCC secretariat in writing of the commencement of the project activity and of their intention to seek CDM status.
 - ⇒ Such notification must be made within 6 months of the project activity start date.
 - ⇒ Such notification is not necessary if a PDD has been published for global stakeholder consultation or a NM proposed to the EB before the project activity start date.
- When validating a project activity with a start date on or after 2 August 2008 DOEs shall ensure by means of confirmation from the DNA or UNFCCC secretariat that such a notification has been provided. If such a notification has not been provided the DOE shall determine that the CDM was not seriously considered in the decision to implement the project activity.
- Additionally for project activities for which a PDD has not been published for global stakeholder consultation or a NM proposed or request for revision of an AM is requested, every subsequent 2 years after the initial notification the PPs shall inform the DNA and/or the UNFCCC secretariat of the progress of the project activity.

Existing project activities

- Proposed project activities with a start date before 2 August 2008, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation, are required to demonstrate that the CDM was seriously considered in the decision to implement the project activity. Such demonstration requires the following elements to be satisfied:
 - ⇒ The PP must indicate 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 would include, inter alia, minutes and/or notes related to the consideration of the decision by the Board of Directors, or equivalent, of the PP, to undertake the project as a CDM project activity.
 - ⇒ The PP must indicate, by means of reliable evidence, that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation. Evidence to support this should include, inter alia, contracts with consultants for CDM/PDD/methodology services, Emission Reduction Purchase Agreements or other documentation related to the sale of the potential CERs, evidence of agreements or negotiations with a DOE for validation services, submission of a NM to the EB, publication in newspaper, interviews with DNA, earlier correspondence on the project with the DNA or the UNFCCC secretariat;
- 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.

8-2. Crediting period



 PPs select a crediting period for a proposed project activity from one of the following alternative approaches

[CMP/2005/8/Ad1, p17 para49] :

- A maximum of 7 years which may be renewed at most 2 times.
 - ⇒ For each renewal, a DOE determines and informs the EB that the original project baseline is still valid or has been updated taking account of new data where applicable.
- A maximum of 10 years with no option of renewal.
- ♦ GHG emission reductions since 2000 may be eligible to claim CERs. [CP/2001/13/Ad2, p23 para13]

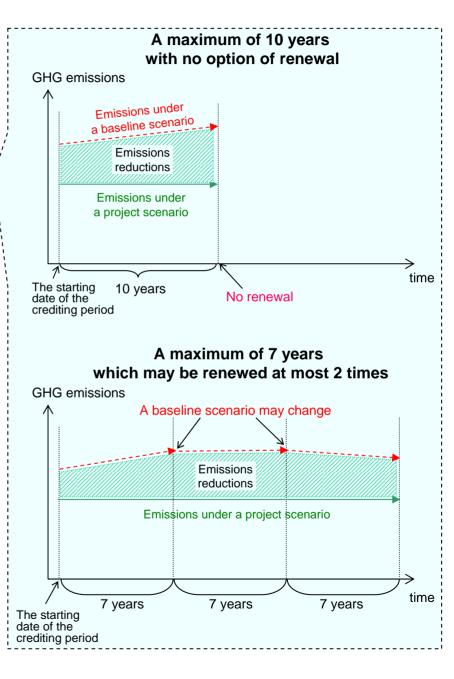
Regarding the procedures and documentation which need to be used for the renewal of a crediting period, the EB agreed that at the start of the 2nd and 3rd crediting period for a project activity, assessing the continued validity of the baseline and updating the baseline, need to be addressed. [EB20 Anx7, para1] (chap.17)

Indicating the starting date of the crediting period [EB24 Anx31, para4-5]

PPs shall state in the PDD the starting date of the crediting period in the format dd/mm/yyyy, no qualifications, e.g. "expected", can be made to this date. PPs shall specify only one starting date for the crediting period, even in cases of phased implementation.

The starting date of a CDM project activity (chap.8-1) does not need to correspond to the starting date of the crediting period for this project activity. Therefore project activities starting as of 1 January 2000 may be validated and registered. [EB21 Rep, para63]

- The crediting period of a project activity cannot commence prior to the date of registration. The date in a PDD is an indicative starting date and it will be updated by the secretariat as the date of registration, if the listed date is prior to the date of registration.
 - ⇒ This update will not affect the specified length of the crediting period nor does this impact the rights of PPs to subsequently request a change of the starting date of the crediting period. [EB41 Anx12, p18]



8-2. Crediting period

Requesting changes to the starting date of the crediting period [EB24 Anx31, para6-9]

- PPs in projects for which the starting date of the crediting period is prior to the date of registration (i.e. project claiming retroactive credits) cannot request changes in the starting date of the crediting period.
- ♦ PPs of projects for which the starting date of the crediting period is after the date of registration may:
 - (a) Inform the secretariat that the starting date of the crediting period be moved to a date up to 1 year earlier than the one indicated in the PDD, provided that this date is not earlier than the date of registration of the project activity;
 - (b) Inform the secretariat to delay the starting date of the crediting period by up to 1 year;
 - (c) Make a request to the secretariat, via a DOE, that the starting date of the crediting period be delayed by more than 1 year but no more than 2 years by submitting to the secretariat:
 - ⇒ confirmation from a DOE that no changes have occurred which would result in a less conservative baseline and that substantive progress has been made by the PPs to start the project activity;
 - ⇒ confirmation from the Host Party that the revision to the crediting period will not alter the project's contribution to sustainable development.
- The secretariat will consider requests made under (c), in consultation with the Chair of the EB, before making the requested change to the start of the crediting period.
- ♦ PPs may only make use of provisions of (a), (b) or (c) above once for each registered project activity.
- For the case of a request for a change in the starting date of the crediting period of a project activity for which CERs have already been issued, procedures above apply and that the secretariat can proceed to make the change as requested. [EB25 Rep, para105]
- ------

Treatment of the lifetime of plants and equipment in proposed new baseline methodologies [EB22 Anx2, para4-9]

- Where a project activity involves the replacement or retrofit of existing equipment or facilities, it is reasonable to assume that emission reductions shall only be accounted from the date of replacement until the point in time when the existing equipment would have been replaced in the absence of the project activity or the end of crediting period, whatever is earlier.
- In order to estimate the point in time when the existing equipment would need to be replaced in the absence of the CDM, a new methodology may consider the following approaches:
 - ⇒ A sector and/or activity specific method or criteria to determine when the equipment would be replaced or retrofitted in the absence of the CDM;
 - ⇒ The typical average technical lifetime of the type equipment may be determined and documented, taking into account common practices in the sector and country, e.g. based on industry surveys, statistics, technical literature, etc.;
 - ⇒ The practices of the responsible entity/PPs regarding replacement schedules may be evaluated and documented, e.g. based on historical replacement records for similar equipment.

9. Other items in the project design document (PDD)

9-1. Project boundary and leakage

Project Boundary

- The project boundary shall encompass all anthropogenic GHG emissions by sources under the control of the PPs that are significant and reasonably attributable to the CDM project activity. [CMP/2005/8/Ad1, p17 para52]
 - The Meth Panel (MP) shall develop specific proposals for consideration by the EB on how to operationalize the terms "under the control of", "significant" and "reasonably attributable." [Glos ver.3, p25]
 - Pending decisions by the EB on these terms, PPs are invited to explain their interpretation of such terms when completing and submitting the CDM-NM.

Leakage

- Leakage is defined as the net change of GHG emissions which occurs outside the project boundary, and which is measurable and attributable to the CDM project activity. [CMP/2005/8/Ad1, p17 para51]
 - ⇒ In an operational context, the terms measurable and attributable should be read as "which can be measured" and "directly attributable", respectively. [Glos ver.3, p21]
- Reductions in GHG emissions shall be adjusted for leakage in accordance with the monitoring and

verification provisions. [CMP/2005/8/Ad1, p17 para50]

9-2. Monitoring plan

- Monitoring refers to the collection and archiving of all relevant data necessary for determining the baseline, measuring GHG emissions within the project boundary of a CDM project activity and leakage, as applicable. [Glos ver.3, p22]
- ◆ A monitoring plan for a proposed project activity shall be based on a previously approved monitoring methodology or a new methodology. [CMP/2005/8/Ad1, p17 para54]
- Revisions, if any, to the monitoring plan to improve its accuracy and/or completeness of information shall be justified by PPs and shall be submitted for validation to a DOE. [CMP/2005/8/Ad1, p18 para57]
 - The EB requested the secretariat to prepare draft procedures to facilitate the changes in monitoring plans of registered CDM project activities. [EB25 Rep, para109]
 - F A monitoring methodology approved by the EB and made
 - publicly available along with relevant guidance. [Glos ver.3, p22]
 - PPs may propose a new monitoring methodology.
 - ⇒ The new baseline and monitoring methodologies (NMs) shall be proposed and approved together.

BOX: Conditions of use of measurement instruments in the monitoring [EB23 Rep, para24]

- The specific uncertainty levels, methods and associated accuracy level of measurement instruments and calibration procedures to be used for various parameters and variables should be identified in the PDD, along with detailed quality assurance and quality control procedures.
- In addition standards recommended shall either be national or international standards.
- The verification of the authenticity of the uncertainty levels and instruments are to be undertaken by the DOE during the verification stage.
- A zero check cannot be considered as a substitute for calibration of the measurement instrument. [EB24 Rep, para37]

10. Approval from each Party involved

Approval by Parties involved [Glos ver.3, p6-7]

- The DNA of a Party involved in a proposed CDM project activity shall issue a statement including the following:
 - F The Party has ratified the Kyoto Protocol.
 - The approval of voluntary participation in the proposed CDM project activity
 - In the case of Host Party(ies): statement that the proposed CDM project activity contributes to sustainable development of the host Party(ies).
- ◆ The written approval shall be unconditional with respect to the above.
- A written approval from a Party may cover more than one project provided that all projects are clearly listed in the letter.
- ♦ The DOE shall receive documentation of the approval.

BOX: Contents of actual approval letters

An approval letter is addressed and sent to PPs.

FIN most cases, an approval letter is the same with an authorization letter. (chap.4-6)

- \Rightarrow In some cases, a DNA authorizes an entity in another country.
- FIN some cases, a DNA sets conditions on issues other than unconditional issues.
 - ⇒ For example, conditions on amount of CERs to be transferred, validity of the approval, the rejection of an unilateral CDM project, the requirement of reports to a DNA, etc.

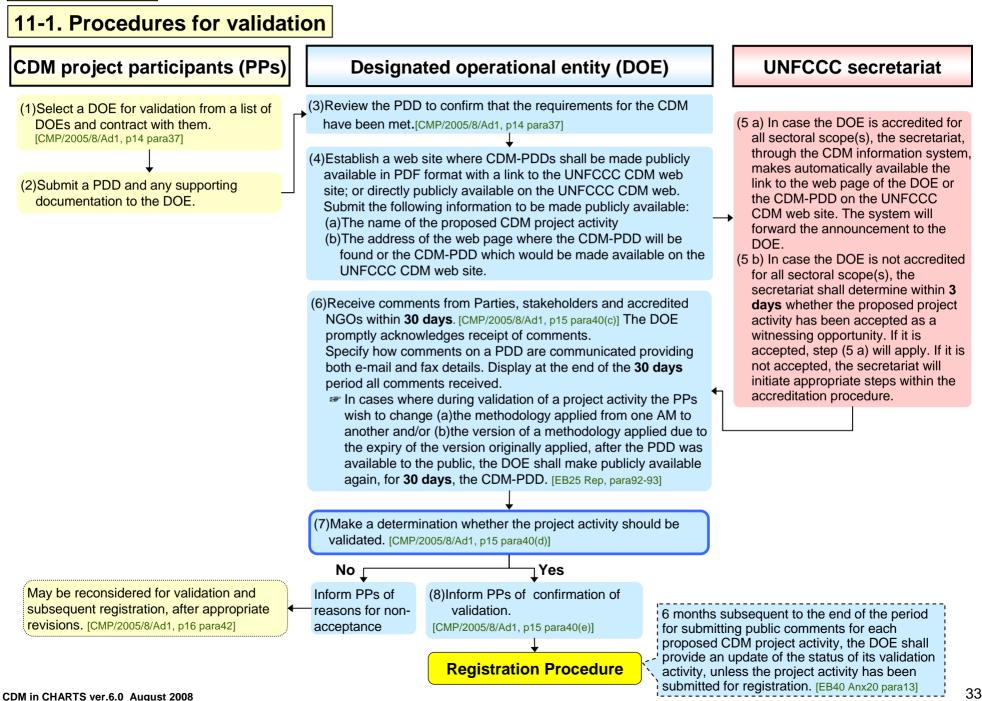
In some cases, an official approval letter is written in the original language and validated with a seal, while an unofficial English translation is attached.

The registration of a project activity can take place without an Annex I Party being involved at the stage of registration.

- ☞ Before an Annex I Party acquires CERs from such a project activity from an account within the CDM registry, it shall submit a letter of approval to the EB in order for the CDM Registry administrator to be able to forward CERs from the CDM registry to the Annex I national registry. [EB18 Rep, para57] ⇒ This is so called "unilateral CDM
 - ⇒ inis is so called "unilateral CDM project."

11. Validation

http://cdm.unfccc.int/Reference/Procedures/public_availPDD_ver04.pdf[Version 4 / June 2005] Procedures for processing and reporting on validation of CDM project activities [EB40 Anx20]



11-2. Validation requirements

The DOE selected by PPs to validate a project activity, being under a contractual arrangement with them, shall review the PDD and any supporting documentation to confirm that the following requirements have been met. [CMP/2005/8/Ad1, p14 para37]

- The participation requirements, as follows, are satisfied;
 - ⇒ Participation in a CDM project activity is voluntary. Parties participating in the CDM shall designate a national authority (DNA) for the CDM. A non-Annex I Party may participate in a CDM project activity if it is a Party to the Kyoto Protocol.
- Comments by local stakeholders have been invited, a summary of the comments received has been provided, and a report to the DOE on how due account was taken of any comments has been received;
- PPs have submitted to the DOE documentation on the analysis of the environmental impacts of the project activity or an environmental impact assessment in accordance with procedures as required by the host Party;
- The project activity is expected to result in GHG reductions that are additional to any that would occur in the absence of the proposed project activity;
- The baseline and monitoring methodologies comply with requirements pertaining to methodologies previously approved by the EB, or modalities and procedures for establishing a new methodology;
- Provisions for monitoring, verification and reporting are in accordance with the CDM M&P and relevant decisions of the COP/MOP;
- The project activity conforms to all other requirements for CDM project activities in CDM M&P and relevant decisions by the COP/MOP and the EB.

Validation Report [CMP/2005/8/Ad1, p15 para40]

The DOE shall:

- Prior to the submission of the validation report to the EB, have received from the PPs written approval of voluntary participation from the DNA of each Party involved, including confirmation by the host Party that the project activity assists it in achieving sustainable development;
- In accordance with provisions on confidentiality above, make publicly available the PDD;
- Submit to the EB, if it determines the proposed project activity to be valid, a request for registration in the form of a validation report including the PDD, the written approval of the host Party, and an explanation of how it has taken due account of comments received;
- Make this validation report publicly available upon transmission to the EB.

CDM in CHARTS ver.6.0 August 2008

BOX: Revisions to AM and validation

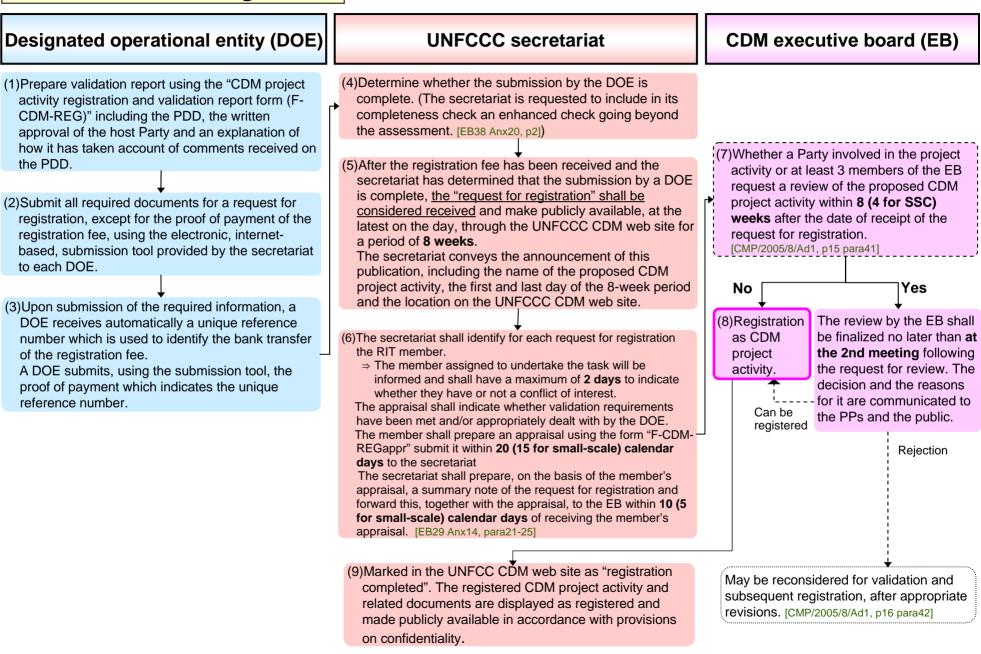
[EB27 Rep, para29]

In cases where during validation of a project activity the PPs have to change the version of a methodology applied due to the expiry of the version originally applied after the PDD was available to the public for comments (note the PDD is to be made public as received from PPs), the DOE shall make publicly available, for **30 days**, the CDM-PDD unless otherwise specified in the corresponding revised methodology if the PP make this change within the grace period.

12. Registration

12-1. Procedures for registration

[EB14 Anx7] [CMP/2005/8/Ad1, p54]



12-2. Procedures for review of registration [EB38 Anx20]

(1) Request for review

A request for review

shall be made by

notifying the EB.

By a Party involved in a proposed CDM project activity By a member of the A request for review shall be sent by the relevant DNA to the EB. **EB**

through the secretariat, using official means of communication (such as recognized official letterhead and signature or an official dedicated e-mail account).

The secretariat acknowledges the receipt of a request for review and promptly forward the request to the EB via the list-serve.

- A review shall be related to issues associated with the validation requirements
- A request for review shall include the CDM project activity registration review form (F-CDM-RR) and provide reasons, including any supporting documentation.
- A request for review is not be considered if it is received after 17:00 GMT of the last day of the 8-week period after the receipt of the request for registration.
- If 3 EB members submit the request for review form on the basis of issues which are only of minor nature, the DOE/PPs will be informed by the secretariat that the registration of the project has been postponed until they have provided satisfactory clarifications to the issue(s) raised. These clarifications shall be submitted to the secretariat within 2 weeks from the notification and they will be checked by the secretariat, in consultation with the Chair of the EB before the activity is registered.

As soon as a Party involved or 3 EB members request a review of a proposed project activity, the following action shall be taken:

- (a) The consideration of a review of the proposed project activity shall be included in the proposed agenda of the next meeting (In case a project is requested for review 3 weeks before the start day of a EB meeting) or a subsequent EB meeting;
- (b)The EB notifies the DOE/PPs that a review has been requested, and informs about the date and venue of the next and subsequent EB meetings at which the request for review will be considered. Stakeholders interested in the review process also be given opportunity to attend the EB meeting;
 - ⇒ The DOE/PPs, when being notified of the request for review, shall be invited to submit comments to the EB on issues raised. The deadline for submitting such comments shall be within 2 weeks from the notification.
 - ⇒ In case a project is requested for review within 1 week prior to the deadline for circulation of the proposed agenda, there is a different treatment.
- (c) The DOE/PPs each provide a contact person for the review process;
- (d) The proposed project activity will be marked as being "under review" on the UNFCCC CDM web site and a notification be sent through the News facility.

CDM in CHARTS ver.6.0 August 2008

(2) Scope and modalities of review

- The EB considers and decides, at **its next meeting**, either to undertake a review or register as a CDM project activity.
- If the EB decides to register the activity it may request the DOE/PPs to make corrections before proceeding with
- registration. If the Chair of the EB considers that the corrections have not been made properly, the Chair may ask the secretariat to place the case on the agenda of the next meeting of the EB.
- If the EB agrees to undertake a review, it decides on the scope of the review and the composition of a review team, at the same meeting. The review team consists of 2 EB members and outside experts, as appropriate.

(3) Review process

- A detailed request for clarification shall be prepared and submitted to the DOE/PPs by the review team within 1 week after the composition of a review team.
- Clarifications from the DOE/PPs to the review team shall be submitted 5 working days after the request for clarifications has been made by the review team.
- The recommendation by the review team shall be made available to the EB no later than 1 week before the next EB meeting.

(4) Review decision

- The review by the EB shall be finalized no later than at the 2nd meeting following a request for review.
- The EB decides on whether to register the proposed project activity, to request the DOE/PPs to make corrections before proceeding with registration, or to reject it.
- The EB shall communicate the decision to the public.
- If the review indicates any issues relating to performance of the DOE, the EB considers whether or not to trigger a spot-checking of the DOE.

BOX: Coverage of costs of the request for review

The EB bears the costs for reviewing. If the EB rejects the registration and if a DOE is found in the situation of malfeasance or incompetence, the DOE shall reimburse the EB for the expenses. This provision is subject to review as experience accrues. [EB38 Anx20, para21]

12-3. Registration fee

Registration fee of the CDM project activity [EB37 Anx20]

- PPs shall pay registration fee at registration stage.
- The revised registration fee shall be the share of proceeds to cover administrative expenses (SOP-Admin) applied to the expected average annual emission reduction for the project activity over its crediting period.
 - SOP-Admin is USD 0.10/CER issued for the first 15,000 t-CO₂ and USD
 0.20/CER issued for any amount in excess of 15,000 t-CO₂, for which issuance is requested in a given calendar year.
 - The maximum registration fee shall be USD 350,000.
 - No registration fee has to be paid for CDM project activities with expected average annual emission reduction over the crediting period below 15,000 t-CO₂.
 - No registration fee and share of proceeds at issuance have to be paid for CDM project activities hosted in least developed countries.

Expected average annual emission reduction	Registration fee					
10,000 t	-					
15,000 t	\$ 1,500					
30,000 t	\$ 4,500					
100,000 t	\$ 18,500					
1,000,000 t	\$ 198,500					
1,757,500 t	\$ 350,000					
3,000,000 t	\$ 350,000					

Example of registration fee

- The DOE shall include a statement of the likelihood of the project activity to achieve the anticipated emission reductions stated in the PDD. This statement will constitute the basis for the calculation of the registration fee. [EB11 Anx6, para2]
- For A/R CDM, there is the "Guidance related to the registration fee for proposed A/R CDM project activities. [EB36 Anx21]

☞ The registration fee shall be deducted from the SOP-Admin.
 ⇒ Sop-Admins is a fee that PPs have to pay at issuance of CERs. (chap.16)
 ☞ In effect, the registration fee is an advance payment of the SOP-Admin for the emission reductions achieved.
 ☞ If an activity is not registered, any registration fee above USD 30,000 shall be reimbursed.

BOX: Withdrawn of PDD-published project activity

The EB agreed that where a PP listed in the PDD published at validation is not included in the PDD submitted for registration, the DOE shall provide a letter from the withdrawn PP confirming its voluntary withdrawal from the proposed project activity, and address this issue in its validation report. [EB30 Rep, para41]

13. Revising a monitoring plan

- The CDM modalities and procedures allow PPs to revise monitoring plans in order to improve accuracy and/or completeness information, subject to the revision being validated by a DOE. [CMP/2005/8/Ad1, p18 para57]
- ♦ A request for revision of the monitoring plan is made by the DOE in advance of request for issuance of CERs.
- ♦ The request for revising monitoring plan is made in cases where:
 - the monitoring plan in the registered CDM project activity document is found not to be consistent with the approved monitoring methodology applied to the registered project activity; or
 - the proposed revision of the monitoring plan ensures that the level of accuracy or completeness in the monitoring and verification process is not reduced as a result of the revision. [EB31 Anx14 para14-15]

Applicability of the revised monitoring plan [EB26 Anx34 para4]

PPs shall implement the monitoring plan contained in the registered PDD. PPs may only apply a revised monitoring plan once it has been accepted by the Chair of the MP in consultation with the Chair of the EB in accordance with this procedure.

Performing validation [EB26 Anx34 para5]

The DOE shall prepare and submit to the secretariat via a dedicated interface on the CDM website a validation opinion including information on how:

- the proposed revision of the monitoring plan ensures that the level of accuracy or completeness in the monitoring and verification process is not reduced as a result of the revisions;
- the proposed revision of the monitoring plan is in accordance with the approved monitoring methodology applicable to the project activity
- ret the findings of previous verification reports, if any, have been taken into account.

Processing of applications [EB26 Anx34 para6-9]

- The secretariat shall carry out a completeness check of the documentation submitted and when deemed complete assign the proposed revision to a member of the RIT to prepare an appraisal.
- The appraisal shall be submitted to the secretariat within a period of **10 days**, and forwarded to the EB within **1 working day**.
- The proposed revision of the monitoring plan shall be considered by the secretariat in consultation with the Chair of the MP and the Chair of the EB.
- First faccepted, the revised monitoring plan shall be displayed on the project page on the CDM website.

BOX: Change in the dates of a monitoring period

The EB decided to allow DOEs to request a change in the dates of a monitoring period undergoing verification, provided the change is the result of the corrective action request raised by the DOE during the verification process.

14. Verification, certification and issuance of CERs

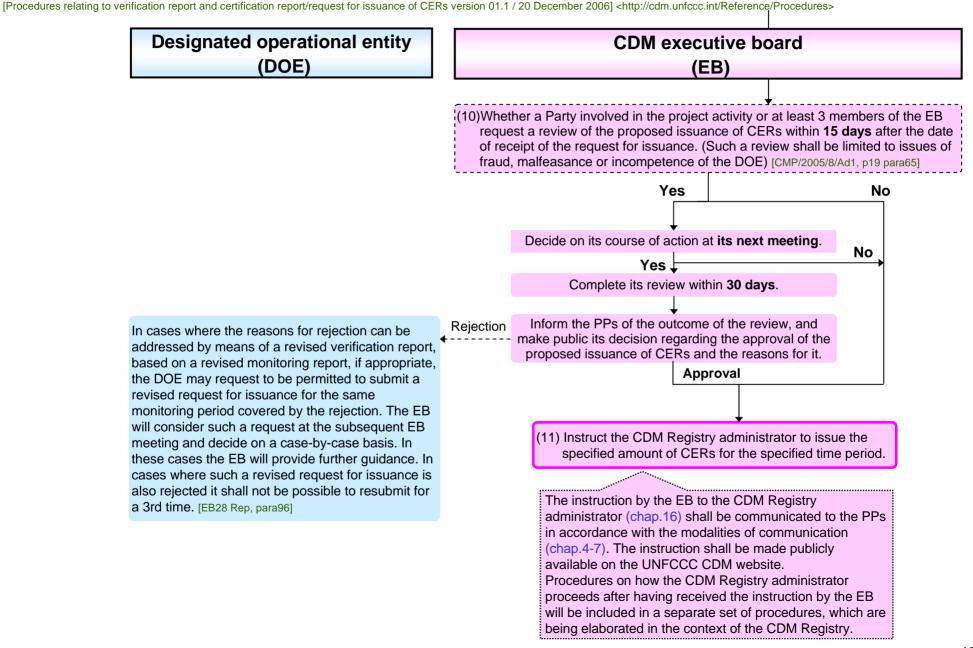
14-1. Procedures for verification, certification and issuance of CERs

[Procedures for making the monitoring report available to the public in accordance with paragraph 62 of the modalities and procedures for the CDM version01 / 7 April 2005][Procedures relating to verification report and certification report/request for issuance of CERs version 01.1 / 20 December 2006] http://cdm.unfccc.int/Reference/Procedures

CDM project participants	Designated operational entity	UNFCCC secretariat
(PPs)	(DOE)	
(1)CDM project participants contract with a DOE for verification and certification from a list of DOEs and submit a monitoring report.	 (2)Make the monitoring report directly publicly available in PDF format on the UNFCCC CDM web site using a dedicated interface, specifying the start and ending date of the monitoring period. 	 (3)Immediately upon completion of the entry by the DOE, the information shall be made available on the UNFCCC CDM web site and the public shall be informed of the availability of the monitoring report through the CDM news facility. The secretariat shall promptly inform the DOE and PPs when the announcement has been made.
[CMP/2005/8/Ad1, p18 para60]] ⇒ Timing and frequency of submission is not specified in the official documents.	 ⇒ Unless the EB has agreed grant an exception, a DOE shall not perform verification functions on a CDM project activity for which it has performed the function of validation/registration. ⇒ The first monitoring report made publicly available shall be the one prepared by 	 (7)Expeditiously determine whether the submission by the DOE is complete. (The secretariat is requested to include in its completeness check an enhanced check going beyond the assessment. [EB38 Anx22, p2]) ⇒ The date of receipt of a request for issuance is the date when the secretariat has determined that the request is complete.
	the PPs prior to the verification activity. Any revised monitoring report, prepared as a result of corrective action raised by the DOE, shall be submitted as an additional document together with the request for issuance. [EB25 Rep, para107]	 (8)The form, the verification and certification reports shall be made available on the UNFCCC CDM web site. The web site shall be distributed to: ⇒ EB by e-mail through its listserv ⇒ PPs, in accordance with the modalities of communication
		 ⇒ Parties involved through DNA ⇒ DOE by e-mail to the contact person(s)
	(4)Implement verification and provide a	\Rightarrow Public through the UNFCCC CDM news facility.
	 verification report. [CMP/2005/8/Ad, p18 para62(a)-(h)] (5)Based on its verification report, certify in writing the verified amount of GHG emission reductions. [CMP/2005/8/Ad1, p19 para63] 	(9)The secretariat shall identify for each request for issuance the RIT member. The member will be informed and has a maximum of 1 day to indicate whether he/she has or not a conflict of interest. If a conflict of interest situation exists another person shall be assigned. The appraisal shall indicate whether verification and certification requirements have been met and/or appropriately dealt with by the DOE. The RIT member shall prepare an appraisal using the form
	(6)Submit the form "CDM form to submit verification and certification reports and to request issuance (F-CDM-REQCERS)" including, inter alia, the verification and certification reports, using the electronic	"Appraisal of issuance requests (F-CDM-ISSappr)" and submit it to the secretariat within 6 calendar days . The secretariat shall prepare a summary note of the request for issuance and forward this, together with the member's appraisal, to the EB within 3 calendar days of receiving the member's appraisal. [EB29 Anx14, para27-32].
	submission tool available to DOEs on the	
	UNFCCC CDM website.	Next Page



14-1. Procedures for verification, certification and issuance of CERs



UNFCCC CDM web site.

14. Verification, certification and issuance of CERs

14-2. Procedures for review of issuance [EB38 Anx22]

(1) Request for review

By a Party involved in a proposed CDM project activity A request for review shall be sent by the relevant DNA to the EB, through the secretariat, using official means of communication (such as recognized official letterhead and signature or an official dedicated e-mail account).

The secretariat shall acknowledge the receipt of a request for review and promptly forward the request to the EB via the list-serve.

- F A review shall be limited to issues of fraud, malfeasance or incompetence of the DOEs. A request for review shall be specific in this regard.
- F A request for review of a request for issuance of CERs has to clearly indicate the reasons and need for requesting in the on-line request for review form (FCDM-IR).
- F A request for review is not be considered if it is received after 17:00 GMT of the last day of the 15-day period after the receipt of the request for issuance of CERs.
- F If 3 EB members submit the request for review form on the basis of other issues which are only of minor nature, the DOE/PPs will then be informed by the secretariat that the issuance of CERs has been postponed until they have provided satisfactory clarifications to the issue(s) raised. These clarifications shall be submitted to the secretariat within 2 weeks from the notification and they will be checked by the secretariat, in consultation with the Chair of the EB before the CDM registry administrator is instructed to issue CERs.

As soon as a review of a proposed issuance of CERs is requested by a Party involved or by 3 EB members, the following action shall be taken:

- (a) The consideration of a review of the proposed issuance of CERs shall be included in the proposed agenda of the next meeting (In case a issuance of CERs is requested for review **3 weeks before** the start day of a EB meeting) or a subsequent EB meeting;
- (b) The EB notifies the DOE/PPs that a review has been requested, and informs about the date and venue of the EB meeting at which the request for review will be considered. Stakeholders interested in the review process also be given an opportunity to attend the EB meeting;
 - ⇒The DOE/PPs, when being notified of the request for review, shall be invited to submit comments to the EB on issues raised. The deadline for submitting such comments shall be within 2 weeks from the notification.
 - ⇒In case a request for issuance is requested for review within 1 week prior to the deadline for circulation of the proposed agenda, there is a different treatment.
- (c) The DOE/PPs shall each provide a contact person for the review process;
- (d) The proposed issuance of CERs shall be marked as being "under review" on the

(2) Scope and modalities of review

- The EB considers and decides, at its next meeting, either to perform a review of the proposed issuance of CERs or to approve the issuance.
- If the EB decides to approve the issuance it may request the DOE/PPs to make corrections before proceeding with issuance. If the Chair of the EB considers that the corrections have not been made properly, the Chair may ask the secretariat to place the case on the agenda of the next EB meeting.
- If the EB agrees to perform a review, it decides on the scope of the review relating to issues of fraud, malfeasance or incompetence of the DOE and the composition of a review team, at the same meeting. The review team consists of 2 EB members and outside experts, as appropriate.

(3) Review process

- Requests for clarification and further information may be sent to the DOE/PPs. Answers shall be submitted to the review team. through the secretariat, within 5 working days after the receipt of the request for clarification.
- The recommendation by the review team shall be made available to the EB no later than 1 week before the next EB meeting.

(4) Review decision

- The EB shall complete its review within 30 days following its decision to perform the review.
- The EB decides on whether to approve the proposed issuance of CERs, to request the DOE to make corrections based on the findings from the review before approving the issuance of CERs, or to not approve the proposed issuance of CERs.
- The EB shall make public its decision regarding the approval of the proposed issuance of CERs and the reasons for it.
- If the review indicates any issues relating to performance of the DOE, the EB shall consider whether or not to trigger a spotcheck of the DOE.

BOX: Coverage of costs of the request for review

The EB bears the costs for reviewing. If the EB decides not to approve a proposed issuance of CERs and if a DOE is found to be in the situation of malfeasance or incompetence, the DOE shall reimburse the EB for the expenses. This provision is subject to review as experience accrues. [EB38 Anx22, para21]

By a member of the EB A request for review

shall be sent to the EB.

15. Deviation

- A DOE shall, prior to requesting registration of a project activity or issuance of CERs, notify the EB of deviations from AMs and/or provisions of registered project documentation and explain how it intends to address such deviations. [EB24 Anx30, para1]
- A request for deviation is suitable for situations where a change in the procedures for the estimation of emissions or monitoring procedures is required due to a change in the conditions, circumstances or nature of a registered project activity. The deviation shall be project specific.
- A request for deviation is not suited for cases where (i) the monitoring plan is not in accordance with the monitoring methodology applied to the registered project activity, (ii) when the approved methodology is no longer applicable to the project activity, (iii) it results in the types of changes referred to in (chap.7-6), (iv) or for example it results in a change in default parameter values other than those mentioned in the approved methodology. [EB30 Anx1, para12-13]

(1) Submission of a request for deviation [EB24 Anx30, para4-9]

(a) Registration: Request for deviation from an AM

If a DOE finds at validation that PPs deviated from an AM, it may seek guidance on the acceptability of the deviation from the EB prior to requesting registration.

If a DOE finds that the deviation from the AM requires revision of this methodology the procedures provided for revision of AM shall be used.

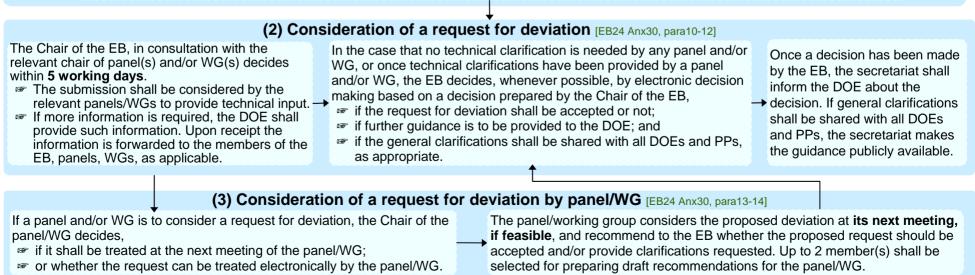
(b) Issuance: Request for deviation from provisions for a registered project activity

If a DOE determines at verification that PPs deviated from the monitoring plan of a registered CDM project activity, it may conclude not to certify, and inform the EB accordingly, or to seek guidance from the EB on the acceptability of the deviation prior to concluding on its verification/certification decision.

If guidance is sought, the DOE shall submit the form for submission of a request for deviation "F-CDM-DEV" through the dedicated internet interface.

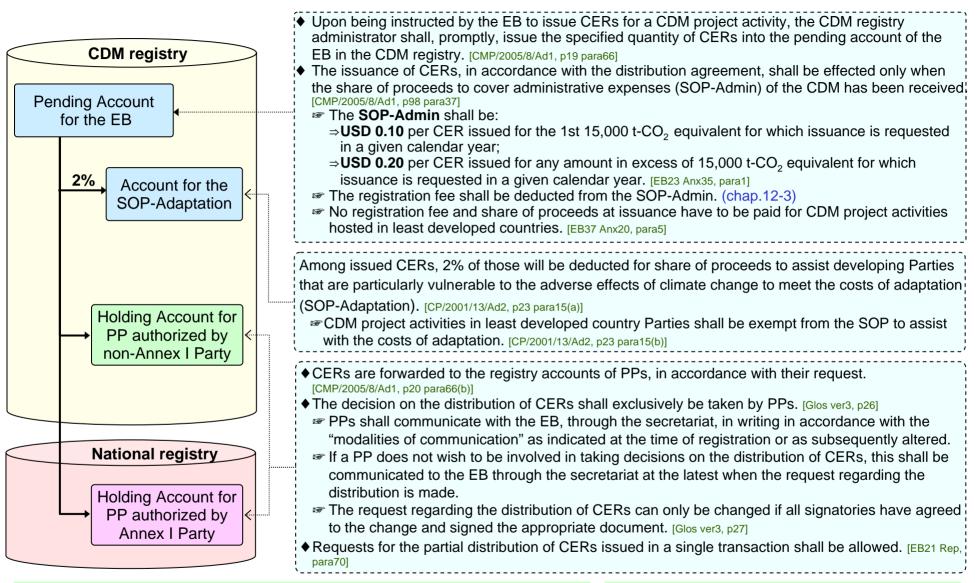
Upon submission of the form, the secretariat shall forward the documentation to the EB (in case of (a), and to the MP).

If the Secretariat, in consultation with the Chair of the MP (in case of (b), the Chair of the EB), assesses that the request for deviation does not meet the criteria for a request for deviation, it shall ask the DOE to submit the request as a request for revision of an AM (in case of (b), to resubmit the request for deviation). The date of transmission by the secretariat to the EB is the date of receipt of a request for deviation. Information on a request for deviation shall be made publicly available unless specified differently by the DOE.



CDM in CHARTS ver.6.0 August 2008

16. Distribution of CERs



BOX: Temporary accounts for PPs from Annex I Parties (chap.21-1)

The CDM registry is to include temporary accounts for Annex I Parties, and PPs from such Parties, until national registries for such Parties (and international transaction log) and entities are operational, for the purpose of receiving CERs, forwarded to them from the pending account and of transferring such units to accounts in national registries. [CP/2004/2/, p15 para57]

BOX: Transferring CERs from the CDM registry

The CDM registry is to enable non-Annex I Parties, and entities from non-Annex I Parties, to transfer CERs from their holding accounts in the CDM registry to accounts in national registries. [CP/2004/2/, p15 para58]

17. Renewal of crediting period

[EB36 Anx43]

The renewal of a crediting period of a registered CDM project activity shall only be granted if a DOE determines and informs the EB that the original project baseline is still valid or has been updated taking account of new data where applicable.

(1) Preparation of a revised PDD

PPs shall update those sections of the PDD relating to the baseline, estimated emission reductions and the monitoring plan using an AM as follows: a) The latest AM, applied in the original PDD of the registered CDM project activity, shall be used whenever applicable;

- w b) If a baseline and monitoring methodology, applied in the original PDD, was withdrawn after the registration of the CDM project activity and replaced by a consolidated methodology, the latest approved version of the respective consolidated methodology shall be used:
- e c) If the registered CDM project activity does not meet applicability criteria of the options provided for by a) or b), due to their revision or due to the update of the baseline, the PPs shall either select another applicable AM or request, through the DOE, a deviation from an AM for the purpose of renewal of the crediting period.

(2) Application for renewal of a crediting period

PPs shall notify the secretariat of their intention to request a renewal of a crediting period of the registered CDM project activity by submitting an updated PDD and informing of their selection of a DOE, within 9 to 6 months prior to the date of expiration of the current crediting period.

- For the purpose of renewal of the crediting period it is not necessary to obtain a new letter of approval from Parties involved.
- Provide the second seco

The DOE's validation opinion shall address the following issues:

- a) the validity of the original baseline scenario or its update;
- ☞ b) an impact of new relevant national and/or sectoral policies and circumstances on the baseline scenario taking into account relevant EB guidance; and
- ☞ c) the correctness of the application of an AM for the determination of the continued validity of the baseline or its update, and the estimation of emission reductions for the applicable crediting period.

A DOE shall submit a request for renewal of a crediting period of a registered CDM project activity using the form "Renewal of the crediting period of a registered CDM project activity" (F-CDM-REN) along with the updated PDD and validation report.

If the notification of the intention to request a renewal of a crediting period is not received by the secretariat 6 months prior to the date of expiration of the current crediting period, the PP shall not be entitled to the issuance of CERs for the period from the expiration date of the current crediting period until the date on which the crediting period is deemed renewed.

(3) Processing of an application

Upon receipt of a request for renewal of a crediting period of the registered CDM project activity the secretariat will determine whether all information and documentation requested in the F-CDM-REN form has been provided by the DOE.

Once the secretariat has determined that the request is complete it shall be made publicly available through the UNFCCC CDM web site for a period of 4 weeks. The secretariat shall announce a request for renewal of a crediting period of the registered CDM project activity on the UNFCCC CDM web site and notify the requesting DOE, the PPs and the DNA.

Unless there is a request for review within 4 weeks after the publication of the request for renewal, the crediting period of the registered CDM project activity shall be deemed renewed.

The procedures to be applied for review of a request for renewal of a crediting period are the same as the procedures for review of registration. (chap.12-2) The start date of the renewed crediting period is the first

day after the ending date of the previous crediting period.

18. Small-scale CDM (SSC)

18-1. Definition of small-scale CDM (SSC)

Simplified modalities and procedures are applicable for the following small-scale CDM project activities. [CMP/2005/8/Ad1, p43-45] Project activities using a renewable crediting period shall reassess their compliance with the limits at the time when they request renewal of the crediting period. [Glos ver3, p31]

Type I project activities shall remain the same, such that renewable energy project activities shall have a maximum output capacity of 15 MW (or an appropriate

equivalent) [CMP/2006/10/Ad1, p8 para28(a)]

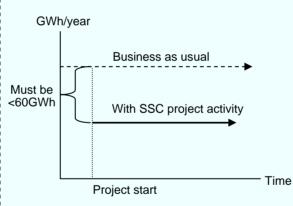
- Maximum "output" is defined as installed/rated capacity, as indicated by the manufacturer of the equipment or plant, disregarding the actual load factor of the plant;
- As MW(e) is the most common denomination, and MW(th) only refers to the production of heat which can also be derived from MW(e), the EB agreed to define MW as MW(e) and otherwise to apply an appropriate conversion factor.

[Glos ver3, p31]

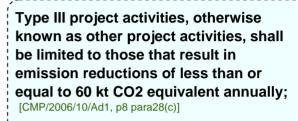
BOX: Equipment performance [Glos ver3, p19]

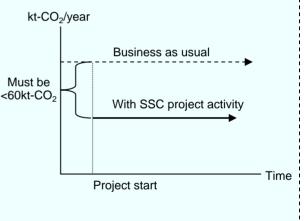
- To determine equipment performance, PPs shall use:
- \Rightarrow (a) The appropriate value specified in CMP/2006/10/Ad1 p9 para28;
- \Rightarrow (b) If the value specified in (a) is not available, the national standard for the performance of the equipment type:
- \Rightarrow (c) If the value specified in (b) is not available, an international standard for the performance of the equipment type, such as ISO and IEC standards;
- \Rightarrow (d) If a value specified in (c) is not available, the manufacturer's specifications provided that they are tested and certified by national or international certifiers.
- PPs have the option of using performance data from test results conducted by an independent entity for equipment installed under the project activity.

Type II project activities or those relating to improvements in energy efficiency which reduce energy consumption, on the supply and/or demand side, shall be limited to those with a maximum output of 60 GWh per year (or an appropriate equivalent); [CMP/2006/10/Ad1, p8 para28(b)]



Demand side, as well as supply side, projects shall be taken into consideration, provided that a project activity results in a reduction of maximum 60 GWh. A total saving of 60 GWh is equivalent to 4000 hours of operation of a 15 MW plant or 60*3.6 TJ = 216 TJ, where TJ stands for terajoules. [Glos ver3, p31]





Project activity with more than one component

- ♦ A single project activity composed of 2 or 3 distinct project activities being implemented by the same PP, each applying an approved category/methodology separate from the other. [Glos ver3, p25]
- ◆ Each <u>component</u> of a project activity should receive or provide an input from/to other components of the project activity. [Glos ver3, p25]
- The EB agreed that the sum of the size of components of a project activity belonging to the same type should not exceed the limits for SSC project activities. [EB28 Rep, para56]
- The EB agreed that a project activity with more than one component may submit one PDD, provided the information regarding the sections covering the <u>type and categories</u> and technology / measure of the SSC project activity and application of the baseline and monitoring methodology in the CDM-PDD are provided separately for each component. [EB28 Rep, para57]
 - Two different project activities will be considered to be applying the <u>same technology</u> if they provide the same kind of output and use the same kind of equipment and conversion process.
 - Two different project activities will be considered to be using the <u>same measure</u> if they constitute the same course of action and result in the same kind of effect (e.g. two projects using the same management practice such as fuel switch). [Glos ver3, p28]

BOX: In case a SSC project activity goes beyond the limit

If a project activity goes beyond the limit of its type in any year of the crediting period, the emission reductions that can be claimed by the project during this particular year will be capped at the maximum emission reduction level estimated in the CDM-SSC-PDD by the PPs for that year during the crediting period. [Glos ver3, p30]

18-2. Simplified modalities and procedures

- SSC project activities shall follow the stages of the project cycle specified in the CDM M&P. In order to reduce transaction costs, however, modalities and procedures are simplified for SSC project activities, as follows: [CMP/2005/8/Ad1, p45 para9]
 - Project activities may be bundled or portfolio bundled at the following stages in the project cycle: the PDD, validation, registration, monitoring, verification and certification;
 - The requirements for the PDD are reduced (Att.1-2);
 - Baselines methodologies by project category are simplified to reduce the cost of developing a project baseline;
 - Monitoring plans are simplified to reduce monitoring costs;
 - Free The same OE may undertake validation, and verification and certification.
- GHG reductions shall be adjusted for leakage in accordance with the provisions of Appendix B (simplified baseline and monitoring methodologies) for the relevant project categories. The EB shall consider simplification of the leakage calculation for any other project categories added to Appendix B.

In the cases where leakage is to be considered, it shall be considered only within the boundaries of non-Annex I Parties. [Glos ver3, p21]

- ◆ The other differences from large-scale CDM project activities are as follows:
 - For the appraisal by EB-RIT, the member shall prepare an appraisal and submit it within **15 calendar days** (20 for large-scale) to the secretariat. The secretariat shall prepare a summary note of the request for registration and forward this, together with the appraisal, to the EB within **5 calendar days** (10 for large-scale) of receiving the member's appraisal. [EB29 Anx14, para24-25]
 - The registration by the EB shall be deemed final 4 (8 for large) weeks after the date of receipt of the request for registration, unless there is a request for review of the proposed CDM project activity. [CMP/2005/8/Ad1, p48 para24]

BOX: Simplified baseline and monitoring methodologies

- There are approved methodologies for small scale CDM project activities (AMS). (Att.3)
- There is a "General guidance on indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories ver.12". [EB41 Anx20]
- There is a "Procedures for submission and consideration of request for clarification on the application of approved small scale methodologies ver.1". [EB34 Anx6]
- There is a "Procedures revisions of SSC methodologies ver.1". [EB34 Anx7]
- There is a "Procedures for submission and consideration of proposed SSC methodologies ver.3". [EB40 Anx2]

18-2. Simplified modalities and procedures

Additionality for SSC project activities [http://cdm.unfccc.int/methodologies/SSCmethodologies/AppB_SSC_AttachmentA.pdf]

- The attachment A to Appendix B (=CMP/2005/8/Ad1 p52) corresponds to list of barriers PPs shall use in order to demonstrate that a small-scale project activity would not have occurred otherwise (i.e. is additional).
- PPs shall provide an explanation to show that the project activity would not have occurred anyway due to at least one of the following barriers:

Investment barrier:	Barrier due to prevailing practice:
a financially more viable alternative to the project	prevailing practice or existing regulatory or policy requirements would
activity would have led to higher emissions;	have led to implementation of a technology with higher emissions;
 Technological barrier: a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertainty or low market share of the new technology adopted for the project activity and so would have led to higher emissions; 	

 Quantitative evidence that the project activity would otherwise not be implemented may be provided instead of a demonstration based on the barriers listed above.

Non-binding best practice examples to demonstrate additionality for SSC project activities [EB35 Anx34]

- Best practice examples of <u>investment barrier</u> include but are not limited to, the application of investment comparison analysis using a relevant financial indicator, application of a benchmark analysis or a simple cost analysis (where CDM is the only revenue stream such as end-use energy efficiency). It is recommended to use national or global accounting practices and standards for such an analysis.
- Best practice examples of <u>access-to-finance barrier</u> (the project activity could not access appropriate capital without consideration of the CDM revenues) include but are not limited to, the demonstration of limited access to capital in the absence of the CDM, such as a statement from the financing bank that the revenues from the CDM are critical in the approval of the loan.
- Best practice examples of <u>technological barrier</u> include but are not limited to, the demonstration of nonavailability of human capacity to operate and maintain the technology, lack of infrastructure to utilize the technology, unavailability of the technology and high level of technology risk.

Best practice examples of <u>barrier due to prevailing practice</u> include but are not limited to, the demonstration that project is among the first of its kind in terms of technology, geography, sector, type of investment and investor, market etc.

18-3. Bundling of SSC

Bundling [Glos ver3, p12]

- Bundle is defined as, bringing together of several SSC project activities, to form a single CDM project activity or portfolio without the loss of distinctive characteristics of each project activity.
- Project activities within a bundle can be arranged in one or more sub-bundles, with each project activity retaining its distinctive characteristics.
- Such characteristics include its: technology/measure; location; and application of simplified baseline methodology.

Project activities within a sub-bundle belong to the same type. The sum of the output capacity of projects within a sub-bundle must not be more than the maximum output capacity limit for its type.

Debundling [EB36 Anx27]

- Debundling is defined as the fragmentation of a large scale project activity into smaller parts.
- ♦ A small-scale project activity that is part of a large scale project activity is not eligible to use the simplified modalities and procedures for SSC project activities.
- ♦A proposed small-scale project activity shall be deemed to be a debundled component of a large scale project activity if there is a registered SSC project activity or a request for registration by another small-scale project activity:
 - By the same project participants;
 - F In the same project category and technology/measure;
 - Registered within the previous 2 years;
 - Whose project boundary is within 1 km of the project boundary of the proposed smallscale activity at the closest point.
- ♦ If a proposed small-scale project activity is deemed to be a debundled component, but the total size of such an activity combined with the previous registered SSC project activity does not exceed the limits for SSC project activities, the project activity can qualify to use simplified modalities and procedures for SSC project activities.

 General Characteristics [SSC GL ver4, p19 para1-8] Project activities wishing to be bundled shall indicate this when making the request for registration. The composition of bundles shall not change over time. A project activity shall not be taken out of a bundle nor shall a project activity be added to 	Letter of approval [SSC GL ver4, p20 para12-14] The letter of approval by the host Party(ies) has to indicate that the Party is aware that the project activity(ies) taking place in its territory is part of the bundle.
 shall not be taken out of a buildle not shall a project activity be added to the bundle after registration. I All project activities in the bundle shall have the same crediting period. I PPs shall at registration provide a written statement along with the submission of the bundle indicating: ⇒ The agreement of all PPs to bundle their individual project activities; ⇒ One PP who represents all PPs in order to communicate with the EB. I Bundled project activities shall be submitted in a single submission to the EB and pay only one fee proportional to the amount of expected average annual emission reductions of the total bundle. 	 Overall monitoring plan [Glos ver3, p24] If project activities are bundled, a separate monitoring plan shall apply for each of the constituent project activities, or an overall monitoring plan shall apply for the bundled projects, as determined by the DOE at validation. Only projects within the same category and technology/measure can use an overall monitoring plan. Validation and verification [SSC GL ver4, p20 para15]
 If 3 EB members or a Party involved in a project activity requests the review of the project activity, the total bundle remains under review. A form with information related to the bundle "F-CDM-BUNDLE" must be included in the submission. (Att.1-3) 	 One DOE can validate this bundle. One verification report is adequate, one issuance will be made at the same time for the same period, and a single serial number will be issued for all the project.

19. Afforestation and Reforestation CDM (A/R CDM)

19-1. Overview of A/R CDM

Rules and procedures regarding A/R CDM project activities are similar to those of GHG emission reduction CDM project activity including project cycle, PDD contents, and validation and verification procedure. The most significant difference between the emission reduction CDM and A/R CDM is non-permanence. Once GHG emission reductions are achieved, they are permanent reduction whereas in A/R CDM, CO₂ once sequestered in trees could be release back into the atmosphere in an occasion of such as forest fire or die back from pests. The issue of non-permanence is addressed by creating different type of CERs, namely temporary CERs (**ICERs**).

project activity [CMP/2005/8/Ad1, p67 para23] C December 2005 as long as the 1st verification of the project a		 An non-Annex I Party may host an A/R CDM project, if it has selected and reported to the EB through its DNA: (a) A single minimum tree crown cover value between 10 and 30%; and (b) A single minimum land area value between 0.05 and 1 hectare; and (c) A single minimum tree height value between 2 and 5 metres [CDM A/R M&P, p17 para7-8] There is the procedure on change in the selected values of minimum tree height required for hosting an A/R CDM project activity. [EB40 anx1]
• •	 A/R CDM project activity starting after 1 January 2000 can be December 2005 as long as the 1st verification of the project a registration of this project activity. Given that the crediting period starts at the same date as the projects starting 2000 onwards can accrue tCERs/ICERs as of the initial verification and certification of an A/R CDM project activity. The initial verification and certification of an A/R CDM project activity at time selected by the PPs. Thereafter, verification and certification and c	ictivity occurs after the date of starting date of the project activity, the of the starting date. [EB21 Rep, para64] ivity may be undertaken at ion shall be carried out
CDM in CHARTS ver.6.0 August 2008		50

19-2. Non-permanence of A/R CDM (tCER and ICER)

Temporary CERs (tCERs) and Long-term CERs (ICERs):

- The PPs shall select one of the following approaches to addressing nonpermanence of an A/R CDM project activity [CMP/2005/8/Ad1, p70 para38]:
 - (a) Issuance of **tCERs** for the net GHG removals by sinks achieved by the project activity since the project starting date; or
 - (b) Issuance of **ICERs** for the net GHG removals by sinks achieved by the project activity during each verification period
- The approach chosen to address non-permanence shall remain fixed for the crediting period including any renewals.

Expiry of tCERs and ICERs

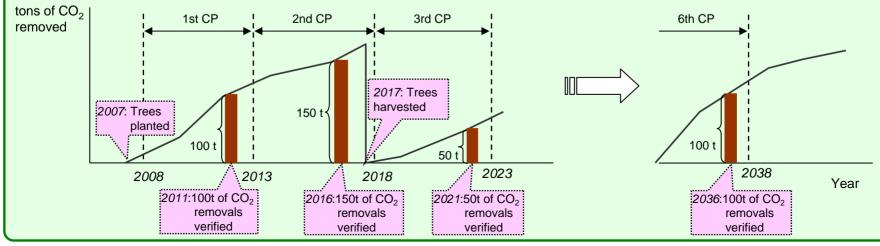
- Each tCER shall expire at the end of the commitment period subsequent to the commitment period for which it was issued. [CMP/2005/8/Ad1, p71 para42]
- Each ICER shall expire at the end of the crediting period or, where a renewable crediting period is chosen, at the end of the last crediting period of the project activity. [CMP/2005/8/Ad1, p71 para46]

Example: Changes in net GHG removals by a A/R project activity

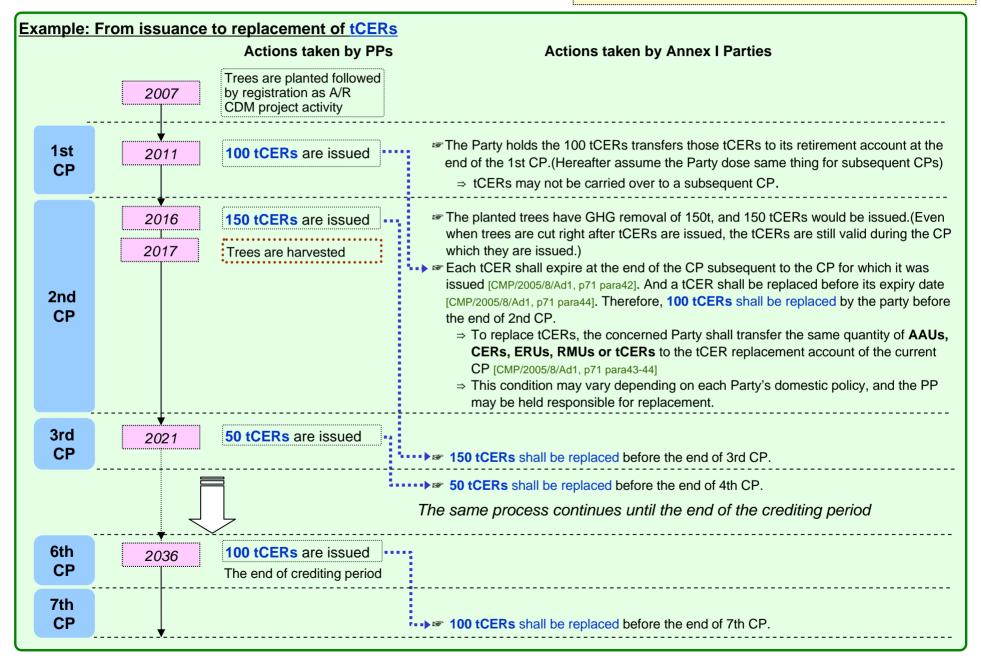
The chart below shows changes in GHG removals by an A/R project activity. In the next two pages, an explanation of issuance and expiration of tCERs and ICERs will be given based on the assumptions shown in the chart below.

- ☞ Trees are planted in 2007.
- Ist issuance of tCERs or ICERs takes place in 2011. Trees are left to grow during the 1st and 2nd commitment periods and 2nd issuance of tCERs or ICERs takes place in 2016.
- Series Assuming each commitment period (CP) would be 5 years.
- Trees are cut in 2017 before the end of the 2nd commitment period (CP) and 3rd issuance takes place in 2021. The last issuance takes place in in 2036.
- Each tCER or ICER issued will be used for achieving a Party's emission reduction target.

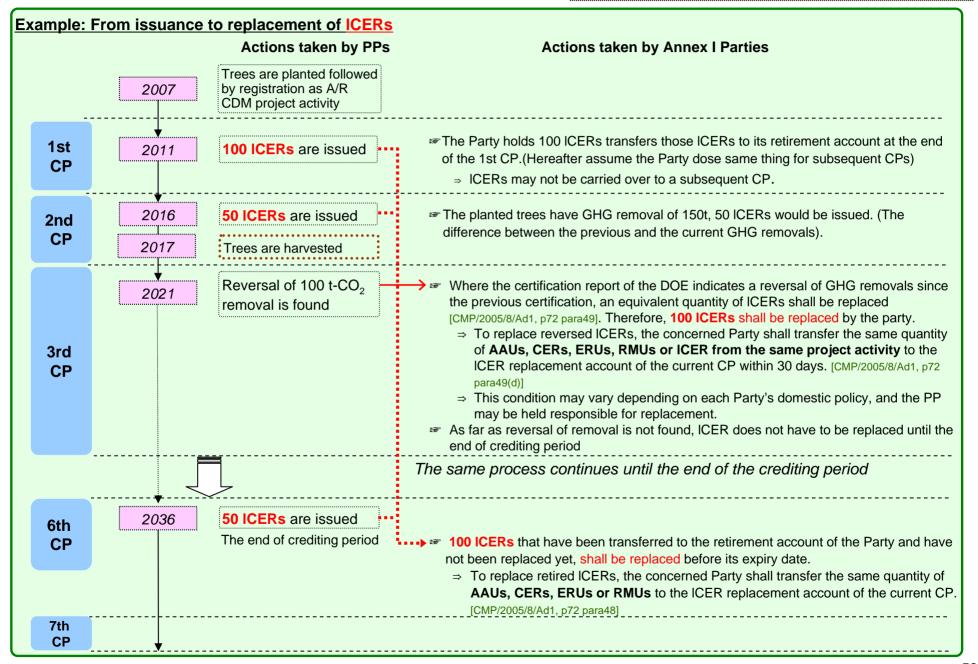
☞ Crediting period is 30 years without renewal.



19-2. Non-permanence of A/R CDM (tCER and ICER)



19-2. Non-permanence of A/R CDM (tCER and ICER)



19-3. Small-scale A/R CDM

 Definition of small-scale A/R CDM project activity ◆ Those that are expected to result in net GHG removals by sinks of less than 16,000 t-CO₂/year; [EB37 Rep, para55] ☞ The average projected net GHG removals by sinks for each verification period shall not exceed 16,000 t-CO₂/year. [CP/2004/10/Ad2, p26 para1(b)] 	If a small-scale A/R CDM project activity results in net GHG removals by sinks greater than 8,000t of CO_2 per year, the excess removals will not be eligible for the issuance of tCERs or ICERs. [CMP/2005/8/Ad1, p62 para1(i)]
 Developed or implemented by low-income communities and	The "General principles for bundling" [EB21, Anx 21] may
individuals as determined by the host Party. [CMP/2005/8/Ad1, p62 para1(i)] Prior to the submission of the validation report to the EB, the	not be applicable mutatis mutandis in the context of
DOE have received from the PPs a written declaration of that.	bundles of small scale A/R project activities created
[CMP/2005/8/Ad1, p85 para15(b)]	for the purpose of validation. [EB32 Rep, para42]

Simplified modalities and procedures for small-scale A/R CDM project activity

- In order to reduce transaction costs, modalities and procedures are simplified for small-scale A/R CDM project activities as follows: [CMP/2005/8/Ad1, p82 para1]
 - F The requirements for the project design document are reduced;
 - Baseline methodologies by project type are simplified to reduce the cost of developing a project baseline;
 - Monitoring plans are simplified, including simplified monitoring requirements, to reduce monitoring costs;
 - F The same operational entity may undertake validation, and verification and certification.
- Small-scale A/R CDM project activities shall be:
 - exempt from the share of proceeds to be used to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change;
 - entitled to a reduced level of the non-reimbursable fee for requesting registration and a reduced rate of the share of proceeds to cover administrative expenses of the CDM. [CMP/2005/8/Ad1, p83 para13]

There is a "Guidelines for completing the simplified project design document for small scale A/R (CDM-SSC-AR-PDD) and the form for submissions on methodologies for small scale A/R CDM project activities (F-CDM-SSC-AR-Subm) Version -04." [EB35 Anx23]

A programme of activities (PoA) and a CDM program activity (CPA)						
 A programme of activities (<i>PoA</i>) is: ☞ a voluntary coordinated action, ☞ by a private or public entity, ☞ which coordinates and implements any policy/measure or stated goal, ⇒ i.e. incentive schemes and voluntary programmes, ☞ which leads to GHG emission reductions or increase removals by sinks additionally, ☞ via an unlimited number of CDM program activities (<i>CPAs</i>). 	 A CDM program activity (<i>CPA</i>) is: <i>■</i> a project activity under a programme of activities, <i>■</i> a single, or a set of interrelated measure(s), <i>■</i> to reduce GHG emissions or result in net removals by sinks, applied within a designated area defined in the baseline methodology. ⇒ The applied AM shall define whether the <i>CPA</i> is undertaken in a single facility/installation/land or undertaken in multiple facilities/installations/land. ⇒ In the case of <i>CPAs</i> which individually do not exceed the SSC threshold, SSC methodologies may be used. 					

◆CDM programme activities (CPAs) under a programme of activities (PoA) can be registered as a single CDM project activity.

 Coordinating or managing entity [EB32 Anx38 para4-5] A PoA shall be proposed by the coordinating or managing entity which shall be a PP authorized by all participating host country DNAs involved and identified in the modalities of communication (chap.4-7) as the entity which communicates with the EB, including on matters relating to the distribution of CERs. PPs of the PoA shall make arrangements with the coordinator or managing entity, relating to communications, distribution of CERs and change of PPs. 	Boundary [EB32 Anx38 para2] ☞ The physical boundary of a <i>PoA</i> may extend to more than one country provided that each participating non-annex I host Party provides confirmation that the <i>PoA</i> , and thereby all <i>CPAs</i> , assists it in achieving sustainable development.			
 Treatment of local/regional/national policies and regulations [EB32 Anx38 para3] A PoA shall comply with all current guidance by the EB concerning the treatment of local/regional/national policies and regulations. PoAs addressing mandatory local/regional/national policies and regulations are permissible provided it is demonstrated that these policies and regulations are systematically not enforced. If they are enforced, the effect of the PoA is to increase the enforcement beyond the mandatory level required. 				
Registration fee for a <i>PoA</i> [EB33 Rep, para60] The registration fee for a <i>PoA</i> is based on the total expected annu that will be submitted together with the request for registration of the				

to be paid and the procedures for payment will follow mutatis mutandis the existing rules. (chap.12-3)

For each **CPA** which is included subsequently, no fee is to be paid.

Fees are to be paid by the coordinating/managing entity to the secretariat.

 Baseline and additionality [EB32 Anx38 para7-8, 12] All CPAs of a PoA shall apply the same AM, The PoA shall demonstrate that GHG reductions or net removals by sinks for each CPA under the PoA are real an measurable, are an accurate reflection of what has occurre within the project boundary, and are uniquely attributable to the PoA. The PoA shall therefore define at registration, the type of information which is to be provided for each CPA to ensure that leakage, additionality, establishment of the baseline, baseline emissions, eligibility and double counting are unambiguously defined for each CPA within the PoA. 	The crediting period of a CPA will be either a maximum of 7 years (20 years for A/R project activities) which may be renewed at most 2 times or a maximum of 10 years (30 years for A/R project activities) with no option of renewal. The duration of the PoA pot exceeding 28 years and 60 years for a maximum of 28 years and			
 If the AM is put on hold or withdrawn, not for the purpose of inclusion in a consolidation, no new <i>CPAs</i> shall be added to th <i>PoA</i> in accordance with the timelines indicated in procedures. If the methodology is subsequently revised or replaced by inclusion in a consolidated methodology, the <i>PoA</i> shall be revised accordingly and changes validated by a DOE and approved by the EB. Once changes have been approved by th EB, each <i>CPA</i> included in the <i>PoA</i> thereafter has to use the new version of the <i>PoA</i>. <i>CPAs</i> included prior to the methodology being put on hold, shall apply the new version of the <i>PoA</i> at the time of the renewal of its crediting period. 	 ⇒ The entity shall inform the EB of the adding of CPA(s) through a DOE using a pre-defined format. The duration of crediting period of any CPA shall be limited to the end date of the PoA regardless of when the CPA was added. The latest version of the "Procedures for Renewal of a Crediting Period of a Registered CDM project activity (chap.17)" shall be 			
 For the p be deeme activity, we sinks of each <i>CPA</i> shall be monitored as per the registered monitoring plan according to the methodology applied to the registered <i>PoA</i>. The method or approach used to verify emission reductions or removals by sinks (<u>that may include</u> <u>random sampling</u>) shall ensure the accuracy of these emission reductions. For the p be deeme activity, we shall be monitored as per the registered <i>PoA</i>. The method or approach used to verify emission reductions or removals by sinks (<u>that may include</u> If a proper the total so not exceed to the total so not exceed to	e same activity implementer as the proposed small scale CPA or has a nating or managing entity, which also manages a large scale PoA of the same al scope, and; bundary is within 1 km of the boundary of the proposed small-scale CPA , at the			

21. Registry and international transaction log (ITL)

21-1. CDM registry

- The EB establishes and maintains a CDM registry to ensure the accurate accounting of the issuance, holding, transfer and acquisition of CERs by non-Annex I Parties. [CMP/2005/8/Ad1, p27 para1-2]
 - Fractional of the termination of terminatioo of terminatio of termination of termination of t
 - The CDM registry is in the form of a standardized electronic database, which enables the accurate, transparent and efficient exchange of data between national registries, the CDM registry and the international transaction log.
- The CDM registry will have the following accounts.

(1) One pending account for the EB, into which CERs are issued before being transferred to other accounts. [CMP/2005/8/Ad1, p27 para3(a)]	(2) Holding accounts for non-Annex I Party of hosting a CDM project activity or requesting an account. [CMP/2005/8/Ad1, p27 para3(b)]	(3) Temporary accounts for Annex I Parties, and PPs from such Parties, until national registries for such Parties and entities are operational, for the purposes of receiving CERs. [CP/2004/2, p15 para57]
(4) Cancellation account for excess CERs, to cancel KP units equ to excess CERs issue as determined by the [CMP/2005/8/Ad1, p27 para3(c)]	tCERs and ICERs that have expired d, account of the CD EB. and ICERs that ha	s, share of proceeds, in a holding to hold and transfer M registry, CERs corresponding ve become to the SOP-

- ◆ Accounts described in (2)(3)(4)(6) above may have multiple accounts.
- Each account will have a unique account number comprising a Party/organization identifier and a number unique to that account. [CMP/2005/8/Ad1, p27 para5]
- ♦ KP units transferred to a cancellation account may not be further transferred or used for the purpose of demonstrating the compliance of a Party with its commitment.
- Each CER has a unique serial number and be held in only one account in one registry at a given time. [CMP/2005/8/Ad1, p27 para4]

Publicly accessible information through the CDM registry

The CDM registry shall make nonconfidential information publicly available through the Internet. [CMP/2005/8/Ad1, p28 para9-12]

◆Up-to-date information for account name, representative identifier,

Party/organization identifier, etc for each account.

CDM project activity information including project name, years of CER issuance, operational entities involved,

downloadable documentation to be made publicly available, etc.

 Holding and transaction information relevant to the CDM registry, by serial number, for each calendar year

Monthly report [EB21 Rep, para70] The CDM registry will provide the monthly reports to DNAs of respective Parties involved.

21-2. National registry

Each Annex I Party must establish and maintain a national registry to ensure the accurate accounting of the issuance, holding, transfer, acquisition, cancellation and retirement of ERUs, CERs, AAUs and RMUs and the carry-over of ERUs, CERs and AAUs. [CMP/2005/8/Ad2, p28 para17]

- Each Party designates an organization as its registry administrator to maintain the national registry of that Party. [CMP/2005/8/Ad2, p28 para18]
 Any 2 or more Parties may voluntarily maintain their respective national registries in a consolidated system, provided that each national registry remains distinct.
- A national registry is in the form of a standardized electronic database. The accurate, transparent and efficient exchange of data between national registries, the CDM registry and the transaction log should be ensured. [CMP/2005/8/Ad2, p28 para19]
- Each national registry has the following accounts in order to account for KP units (AAUs, ERUs, CERs, tCERs, ICERs and RMUs): [CMP/2005/8/Ad2, p28 para21]]

(1) Holding account for the Party	(3) Cancellation account for LULUCF activities, to cancel the KP units in case such activities result in a net source of GHG emissions.	(6) tCER replacement account, to cancel AAUs, CERs, ERUs, RMUs and/or tCERs for the purposes of replacing tCERs prior to expiry. [CMP/2005/8/Ad1, p71 para43]
(2) Holding account for each legal entity authorized by the Party,	(4) Cancellation account for non compliance, to cancel the KP units equal to 1.3 times the amount of excess emissions in case the Party was not in compliance in the 1st commitment period	(7) ICER replacement account, to cancel AAUs, CERs, ICERs, ERUs and/or RMUs for the purposes of replacing ICERs. [CMP/2005/8/Ad1, p71 para47]
to hold KP unite	(5) Cancellation account for other cancellations by the Party, to cancel KP units for purposes of cancellations other than (3) and (4) above.	(8) Retirement account, used to retire KP units valid for that commitment period for use towards meeting the Party's commitments. [CMP/2005/8/Ad2, p27 para14]

For accounts described in (1) (2)(3)(5), multiple accounts may be established.

Accounts described in (3) (4) (5) (6) (7) (8) should be established for each commitment period.

Fach account must have a unique account number comprising a Party identifier and a unique number. [CMP/2005/8/Ad2, p28 para22]

- KP units transferred to cancellation accounts may not be further transferred or carried over to the subsequent commitment period, or be used for the purpose of demonstrating the compliance of a Party. [CMP/2005/8/Ad2, p30 para35]
- KP units transferred to the retirement account may not be further transferred or carried over to the subsequent commitment period. [CMP/2005/8/Ad2, p30 para35]

21-2. National registry

Serial number of KP units *Below are images for illustrative purposes

- Every t-CO₂ of KP units is given a unique serial number.
- Each KP unit shall be held in only one account in one registry at a given time. [CMP/2005/8/Ad2, p28 para20]

Serial Number Identifiers

1	2	3	4	5	6	7	8	9	10	11
XX	1		000,000,000,000,001	999,999,999,999,999	01	01	1	0000001	1	XX/YY/ZZ

	Identifier	Range or Codes
1	Originating Registry	Two-letter country codes in ISO3166, as of 01 January 2005
2	Unit Type	1 = AAU, 2 = RMU, 3 = ERU converted from AAU, 4 = ERU converted from RMU, 5 = CER, 6 = tCER, 7 = ICER
3	Supplementary Unit Type	Blank for Kyoto-only Units, or as defined by STL (supplementary transaction log)
4	Unit Serial Block Start	Unique numeric values assigned by registry from 1 - 999,999,999,999,999
5	Unit Serial Block End	Unique numeric values assigned by registry from 1 - 999,999,999,999,999
6	Original Commitment Period	1 - 99
7	Applicable Commitment Period	1 - 99
8	LULUCF Activity	 1 = Afforestation and reforestation, 2 = Deforestation, 3 = Forest management, 4 = Cropland management, 5 = Grazing land management, 6 = Revegetation
9	Project Identifier	Numeric value assigned by registry for Project, unique per originating registry. The Project Number is the combination of the Originating Registry and the Project Identifier.
10	Track	1 or 2
11	Expiry Date	Expiry Date for tCERs or ICERs

[Data exchange standards for registry system under the Kyoto Protocol, technical specifications (Version 1.1), 26 November, 2006, p F-2]

Publicly accessible information through national registry

Each national registry shall make nonconfidential information publicly available through the Internet. [CMP/2005/8/Ad2, p32 para44-48]

- This also applies to information on accounts held by legal entities.
- Information on accounts
 - The holder of the account, representative name and contact information of the account holder, etc.
- Information on the total quantity of KP units
- ♦Holdings of KP units in each account
- ♦Information on the JI project
 - Project name, location, years of ERU issuance, relevant publicly available documentation.
- A list of legal entities authorized by the Party to participate to the Kyoto Mechanisms.

21-3. International transaction log (ITL)

- The UNFCCC secretariat establishes and maintain an international transaction log (ITL) to verify the validity of transactions, including issuance, transfer and acquisition between registries, cancellation, expiration and replacement (in case of tCER and ICER), retirement and the carry-over of KP units. [CMP/2005/8/Ad2, p31 para38] [CMP/2005/8/Ad1, p73 para55-56] The ITL is in the form of a standardized electronic database. The accurate, transparent and efficient exchange of data between national registries, the CDM registry and the ITL should be ensured ♦ The ITL conducts the following automated check. [CMP/2005/8/Ad2, p31 para42] (1) All transactions (issuance, transfer and acquisition between registries, cancellation, retirement and carry-over) w units previously retired or cancelled; units existing in more than one registry; units for which a previously identified discrepancy has not been resolved; we units improperly carried over: units improperly issued; reference the authorization of legal entities involved to participate in the transaction. (2) Transfers between registries (3) Acquisitions of CERs from A/R (4) Retirement of CERs reference the eligibility of Parties involved in the **CDM** projects reference the eligibility of the Party transaction to participate in the KM; refiningement of the limits involved to use CERs to refiningement upon the commitment period (limitation for net acquisitions of
 - reserve of the transferring Party.

contribute to its compliance.

Prior to the completion of any transactions, the initiating registry sends a record of the proposed transaction to the ITL and, in the case of transfers to another registry, to the acquiring national registry. [CMP/2005/8/Ad2, p31 para41]

The ITL shall records, and makes publicly available, all transaction records and the date and time of completion of each transaction. [CMP/2005/8/Ad2, p32 para43(d)]

tCERs and ICERs).

- The ITL notifies the Annex I Party that a replacement of the tCER or ICER has to occur, 1 month prior to the expiry of each tCER or ICER. [CMP/2005/8/Ad1, p73 para55]
 - Where a Annex I Party does not replace tCERs or ICERs in accordance with the rules, the ITL shall forward a record of nonreplacement to the secretariat, for consideration as part of the review process for the relevant Party, under Art.8 of the KP, to the EB and to the Party concerned. [CMP/2005/8/Ad1, p73 para56]

BOX: In case a discrepancy is notified in the automated check by the ITL

- Fre initiating registry shall terminate the transaction, notify the ITL and, in the case of transfers to another registry, the acquiring registry of the termination. The ITL shall forward a record of the discrepancy to the secretariat for consideration as part of the review process for the relevant Party or Parties under Article 8. [CMP/2005/8/Ad2, p32 para43(a)]
- F In the event of a failure by the initiating registry to terminate the transaction, KP units involved in the transaction shall not be valid for use towards compliance with commitments, until the problem has been corrected and questions have been resolved.
 - ⇒The Party shall perform any necessary corrective action within **30 days**. [CMP/2005/8/Ad2, p32 para43(b)]

Attachment 1. CDM documents

1-1. Project Design Document (CDM-PDD)

- ♦ Revisions come into effect once adopted by the EB.
- ♦ Revisions to the CDM-PDD do not affect project activities:
 - Already validated, or already submitted to the OE for validation, prior to the adoption of the revised CDM-PDD;
 - Submitted to the OEs within a month following the adoption of the revised CDM-PDD;
- The EB will not accept documentation using the previous version of the CDM-PDD 6 months after the adoption of a new version. [PDD GL ver7, p3 para10]

(Version 03 - in effect as of 28 July 2006) [EB25 Anx15]

SECTION A. General description of project activity	SECTION B. Application of a baseline and monitoring methodology	
A.1. Title of the project activity	B.1. Title and reference of the approved baseline and monitoring methodology applied to the project activity	
A.2. Description of the project activity	B.2. Justification of the choice of the methodology and why it is applicable to the project activityB.3. Description of the sources and gases included in the project boundary	
A.3. Project participants		
A.4. Technical description of the project activity	B.4. Description of how the baseline scenario is identified and description of the	
A.4.1. Location of the project activity	identified baseline scenario B.5. Description of how the anthropogenic emissions of GHG by sources are reduced	
A.4.1.1.Host Party(ies)	below those that would have occurred in the absence of the registered CDM project	
A.4.1.2.Region/State/Province etc.	activity (assessment and demonstration of additionality) B.6. Emission reductions	
A.4.1.3.City/Town/Community etc.	B.6.1. Explanation of methodological choices	
 A.4.1.4.Detail of physical location, including information allowing the unique identification of this project activity: A.4.2. Category(ies) of project activity 	B.6.2. Data and parameters that are available at validation	
	B.6.3. Ex-ante calculation of emission reductions	
	B.6.4. Summary of the ex-ante estimation of emission reductions	
	B.7. Application of the monitoring methodology and description of the monitoring plan	
A.4.3. Technology to be employed by the project activity	B.7.1 Data and parameters monitored	
A.4.4. Estimated amount of emission reductions over the chosen crediting period	B.7.2 Description of the monitoring plan	
A.4.5. Public funding of the project activity	B.8. Date of completion of the application of the baseline study and monitoring methodology and the name of the responsible person(s)/entity(ies)	

1-1. CDM-PDD

(Version 03 - in effect as of 28 July 2006) [EB25 Anx15]

SECTION C. Duration of the project activity / Crediting period			
	_	C.1. Duration of the project activity	
		C.1.1. Starting date of the project activity	
		C.1.2. Expected operational lifetime of the project activity	
	C.2. Choice of crediting period and related information		
		C.2.1. Renewable crediting period	
		C.2.1.1. Starting date of the 1st crediting period	
		C.2.1.2. Length of the 1st crediting period	
		C.2.2. Fixed crediting period	
		C.2.2.1. Starting date	
		C.2.2.2. Length	
S	E	CTION D. Environmental impacts	
	C	0.1. Documentation on the analysis of the environmental impacts, including transboundary impacts	
D.2		0.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party	
S	E	CTION E. Stakeholders' comments	
	E	.1. Brief description of how comments by local stakeholders have been invited and compiled	
	E	2.2. Summary of the comments received	
	E	.3. Report on how due account was taken of any comments received	
Annex 1. Contact information on participants in the project activity			
Annex 2. Information regarding public funding			
Annex 3. Baseline information			
Annex 4. Monitoring information			

1-2. Project Design Document for small-scale project activities (CDM-SSC-PDD)

♦ Revisions come into effect once adopted by the EB.

- ♦Revisions to the CDM-SSC-PDD do not affect project activities:
 - Already validated, or already submitted to the OE for validation, prior to the adoption of the revised CDM-SSC-PDD;
 - Submitted to the OEs within a month following the adoption of the revised CDM-PDD;
- The EB will not accept documentation using the previous version of the CDM-PDD 6 months after the adoption of a new version. [SSC GL ver4, p4 para11-12]

(Version 03 - in effect as of 22 December 2006) [EB28 Anx34]

SECTION A. General description of small-scale project activity

A.1. Title of the small-scale project activity

A.2. Description of the small-scale project activity

- A.3. (Same as CDM-PDD)
- A.4. Technical description of the small-scale project activity
 - A.4.1. Location of the small-scale project activity

A.4.1.1 – A.4.1.4. (Same as CDM-PDD)

- A.4.2. Type and category(ies) and technology/measure of the small-scale project activity
- A.4.3. Estimated amount of emission reductions over the chosen crediting period

A.4.4. Public funding of the small-scale project activity

A.4.5. Confirmation that the small-scale project activity is not a debundled component of a large scale project activity

S	SECTION B. Application of a baseline and monitoring methodology			
	B.1. Title and reference of the approved baseline and monitoring methodology applied to the small-scale project activity			
	B.2. Justification of the choice of the project category			
	B.3. Description of the project boundary			
	B.4. Description of baseline and its development			
	B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered small-scale CDM project activity			
	B.6 – B.8. (Same as CDM-PDD)			
S	SECTION C. (Same as CDM-PDD)			
S	ECTION D. Environmental impacts			
	D.1. If required by the host Party, documentation on the analysis of the environmental impacts of the project activity			
	D.2. (Same as CDM-PDD)			
S	ECTION E. Stakeholders' comments			
	E.1.Brief description how comments by local stakeholders have been invited and compiled			
	E.2 – E.3. (Same as CDM-PDD)			
Α	Annex 1 – 4. (Same as CDM-PDD)			

1-3. Forms for submission of bundled small-scale CDM project activities (F-CDM-SSC-BUNDLE)

If project activities wishing to be bundled, a form with information related to the bundle (F-CDM-BUNDLE) must be included in the submission. [SSC GL ver4, p19 para8]

SECTION A. General description of the Bundle			
	A.1. Title of the Bundle: (Include cross references to PDD/s)		
	A.2. Version and Date: (Provide the date and version number of the form, include the version and dates of cross referenced PDD/s)		
	A.3. Description of the Bundle and the subbundles		
	A.4. Project participants		
B.	B. Technical description of the Bundle		
	B.1. Location of the Bundle		
	B.1.1. Host Party(ies)		
	B.1.2. Regions/States/Provinces etc: (provide information in tabular form)		
	B.1.3. Cities/Towns/Communities etc: (provide information in tabular form)		
	B.1.4. Details of physical locations, including information allowing the unique identification of this Bundle		
	B.2. Type/s, Category(ies) and Technology/(ies)/Measure/(s) of the		
	bundle		
	B.3. Estimated amount of emission reductions over the chosen		
	crediting period		

C. Duration of the project activity / Crediting period

- C.1. Duration of the Bundle
- C.1.1. Starting date of the Bundle
- C.1.2. Expected operational lifetime of the project activities
- C.2. Choice of crediting period and related information
 - C.2.1. Renewable crediting period
 - C.2.1.1. Starting date of the first crediting period
 - C.2.1.2. Length of the first crediting period
 - C.2.2. Fixed crediting period
 - C.2.2.1. Starting date
 - C.2.2.2. Length

SECTION D. Application of a monitoring methodology

Annex 1. Contact information on participants in the bundle

[SSC GL ver4, p21]

BOX: Use of a single PDD covering all activities [SSC GL ver4, p20 para17-18]

- If all project activities in the bundle belong to the same type, same category and technology/measure, PPs may submit a single CDM-SSC-PDD covering all activities in the bundle. In this case (a single PDD is used) a single verification and certification report shall be submitted by the DOE.
- In all other cases (if the bundle includes project activities with (a) the same type, same category and different technology/measure; (b) same type, different categories and technologies/measures and; and (c) different types), PPs would have to make the submission of the bundle using a CDM-SSC-PDD for each of the project activities contained in the bundle. In these cases a single verification and certification report can be submitted for the bundle provided that it appraises each of the project activities of the bundle separately and covers the same verification period.

1-4. Programme of Activities Design Document Form (CDM-PoA-DD)

(Version 01) [EB33 Anx41]

This form is for the submission of a CDM PoA whose CPAs apply a large scale approved methodology. At the time of requesting registration this form must be accompanied by a CDM-CPA-DD form that has been specified for the proposed PoA, as well as by one completed CDM-CPA-DD (using a real case).

SECTION A. General description of programme of activities (PoA)	SECTION D. Stakeholders' comments		
A.1. Title of the programme of activities	D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice		
A.2. Description of the programme of activities	D.2. Brief description how comments by local stakeholders have been		
A.3. Coordinating/managing entity and participants of POA	invited and compiled		
A.4. Technical description of the programme of activities	D.3. Summary of the comments received		
A.4.1. Location of the programme of activities	D.4. Report on how due account was taken of any comments received		
	SECTION E. Application of a baseline and monitoring methodology		
A.4.1.1. Host Party(ies)	E.1. Title and reference of the approved baseline and monitoring methodology		
A.4.1.2. Physical/ Geographical boundary	applied to each CPA included in the PoA		
A.4.2. Description of a typical CDM programme activity (CPA)	E.2. Justification of the choice of the methodology and why it is applicable to		
A.4.2.1Technology or measures to be employed by the CPA	each CPA E.3. Description of the sources and gases included in the CPA boundary		
A.4.2.2 Eligibility criteria for inclusion of a CPA in the PoA	E.4. Description of how the baseline scenario is identified and description of the		
A.4.3. Assessment and demonstration of additionality	identified baseline scenario		
A.4.4. Operational, management and monitoring plan for the PoA	E.5. Assessment and demonstration of additionality of CPA		
A.4.4.1 Operational and management plan	E.5.1. Assessment and demonstration of additionality for a typical CPA		
A.4.4.2. Monitoring plan	E.5.2. Key criteria and data for assessing additionality of a CPA		
A.4.5. Public funding of the programme of activities	E.6. Estimation of Emission reductions of a CPA		
SECTION B. Duration of the programme of activities	E.6.1. Explanation of methodological choices, provided in the approved baseline and monitoring methodology applied, selected for a typical CPA		
B.1 Starting date of the programme of activities	E.6.2. Equations, including fixed parametric values, to be used for calculation		
B.2. Length of the programme of activities	of emission reductions of a CPA		
SECTION C. Environmental Analysis	E.6.3. Data and parameters that are to be reported in CDM-CPA-DD form		
C.1. Please indicate the level at which environmental analysis as per	E.7. Application of the monitoring methodology and description of the monitoring plan		
requirements of the CDM modalities and procedures is undertaken. Justify the choice of level at which the environmental analysis is	E.7.1. Data and parameters to be monitored by each CPA		
undertaken	E.7.2. Description of the monitoring plan for a CPA		
C.2. Documentation on the analysis of the environmental impacts, including transboundary impacts	E.8. Date of completion of the application of the baseline study and monitoring methodologyand the name of the responsible person(s)/entity(ies)		
C.3. Please state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for	Annex 1 Contact Information On Coordinating/Managing Entity and Participant in the Programme of Activities		
a typical CPA, included in the programme of activities (PoA)	Annex 2 Information regarding Public Funding		
	Annex 3 Baseline Information		
	Annex 4 Monitoring Information		

1-5. CDM Programme Activities Design Document Form (CDM-CPA-DD) (Version 01) [EB33 Anx42]

• The coordinating/managing entity shall prepare a CDM-CPA-DD, that is specified to the proposed PoA by using the provisions stated in the PoA DD. At the time of requesting registration the PoA DD must be accompanied by a CDM-CPA-DD form that has been specified for the proposed PoA, as well as by one completed CDM-CPA-DD (using a real case). After the first CPA, every CPA that is added over time to the PoA must submit a completed CDM-CPA-DD.

CTION A. General description of CDM programme activity (CPA)	B.5. Emission reductions		
A.1. Title of the CPA	B.5.1. Data and parameters that are available at validation		
A.2. Description of the CPA	B.5.2. Ex-ante calculation of emission reductions		
A.3. Entity/individual responsible for the CPA	B.5.3. Summary of the ex-ante estimation of emission reductions		
A.4. Technical description of the CPA	B.6. Application of the monitoring methodology and description of the		
A.4.1. Identification of the CPA	monitoring plan		
A.4.1.1. Host Party	B.6.1. Description of the monitoring plan		
A.4.1.2. Geographic reference of other means of identification allowing the unique identification of the CPA	SECTION C. Environmental analysis		
A.4.2. Duration of the CPA	C.1. Please indicate the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken.		
A.4.2.1Starting date of the CPA	Justify the choice of level at which the environmental analysis is		
A.4.2.2 Expected operational lifetime of the CPA	undertaken		
A.4.3. Choice of the crediting period and related information	C.2. Documentation on the analysis of the environmental impacts,		
A.4.3. 1.Starting date of the crediting period:	including transboundary impacts		
A.4.3.2. Length of the crediting period, first crediting period if the choice renewable CP	 C.3. Please state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA, included in the PoA 		
A.4.4. Estimated amount of emission reductions over the chosen crediting period	SECTION D. Stakeholders' comments		
A.4.5. Public funding of the CPA	D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice		
A.4.6. Confirmation that CPA is neither registered as an individual CDM project activity nor is part of another Registered PoA	D.2. Brief description how comments by local stakeholders have been		
CTION B. Eligibility of CPA and Estimation of emissions reductions	invited and compiled		
B.1 Title and reference of the Registered PoA to which CPA is added	D.3. Summary of the comments received		
B.2. Justification of the why the CPA is eligible to be included in the Registere PoA			
B.3. Assessment and demonstration of additionality of the CPA, as per	Annex 1 Contact Information On Entity/Individual Responsible for the CPA		
eligibility criteria listed in the Registered PoA			
I. Description of the sources and gases included in the project boundary and	Annex 2 Information regarding Public Funding		
proof that the CPA is located within the geographical boundary of the	Annex 3 Baseline Information		
registered PoA.	Annex 4 Monitoring Information		

Methodological Tools for Emission Reduction CDM Project Activities (AM Tools)

1. Tool for the demonstration and assessment of additionality (ver.5) [EB39 Anx10]	This document provides for a step-wise approach to demonstrate and assess additionality. (Att.4)
2. Combined tool to identify the baseline scenario and demonstrate additionality (ver.2.1) [EB28 Anx14]	This tool provides for a step-wise approach to identify the baseline scenario and simultaneously demonstrate additionality.
3. Tool to calculate project or leakage CO ₂ emissions from fossil fuel combustion (ver.2) [EB41 Anx11]	This tool provides procedures to calculate project and/or leakage CO_2 emissions from the combustion of fossil fuels. It can be used in cases where CO_2 emissions from fossil fuel combustion is calculated based on the quantity of fuel combusted and its properties.
4. Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site (ver.4) [EB41 Anx10]	This tool calculates baseline emissions of methane from waste that would in the absence of the project activity be disposed at solid waste disposal sites (SWDS). This tool is not applicable to stockpiles. Emission reductions are calculated with a first order decay (FOD) model.
5. "Tool to calculate baseline, project and/or leakage emissions from electricity consumption (ver.1) [EB39 Anx7]	The tool may, for example, be used in methodologies where auxiliary electricity is consumed in the project and/or the baseline scenario. The tool can also be applied in situations where electricity is only consumed in the baseline or in the project or as leakage source.
6. Tool to determine project emissions from flaring gases containing methane (ver.1) [EB28 Anx13]	This tool provides procedures to calculate project emissions from flaring of a residual gas stream (RG) containing methane.
7. Tool to calculate the emission factor for an electricity system (ver.1) [EB35 Anx12]	This methodological tool determines the CO_2 emission factor for the displacement of electricity generated by power plants in an electricity system, by calculating the "operating margin" (OM) and "build margin" (BM) as well as the "combined margin" (CM). (Att.6)

Methodological Tools for A/R CDM Project Activities (AR-AM Tools)

- 1. Tool for the demonstration and assessment of additionality in A/R CDM project activities (ver.2) [EB35 Anx17]
- 2. Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities (ver.1) [EB35 Anx19]
- 3. Calculation of the number of sample plots for measurements within A/R CDM project activities (ver.1) [EB31 Anx15]
- 4. Tool for testing significance of GHG emissions in A/R CDM project activities (ver.1) [EB31 Anx16]
- 5. Estimation of GHG emissions related to fossil fuel combustion in A/R CDM project activities (ver.1) [EB33 Anx14]
- 6. Procedure to determine when accounting of the soil organic carbon pool may be conservatively neglected in CDM A/R project activities (ver.1) [EB33 Anx15]
- 7. Estimation of direct nitrous oxide emission from nitrogen fertilization (ver.1) [EB33 Anx16]
- 8. Tool for Estimation of GHG emissions related to displacement of grazing activities in A/R CDM project activity (ver.2) [EB39 Anx12]
- 9. Tool for estimation of GHG emissions from clearing, burning and decay of existing vegetation due to implementation of a CDM A/R project activity (ver.1) [EB36 Anx20]
- 10. Procedures to demonstrate the eligibility of lands for afforestation and reforestation CDM Project Activities (ver.1) [EB35 Anx18]
- 11. Calculation of GHG emissions due to leakage from increased use of non-renewable woody biomass attributable to an A/R CDM project activity (ver.1) [EB39 Anx11]
- 12. Tool for estimation of carbon stocks, removals and emissions for the dead organic matter pools to due to implementation of CDM A/R project activity (ver.1) [EB41 Anx14]
- 13. Tool for the identification of degraded or degrading lands for consideration in implementing CDM A/R project activities (ver.1) [EB41 Anx15]

Key word	Number	Ver.	Name of the Approved Methodology	AM Tools*	Valid from	Reg*
	ACM0002	7	Consolidated baseline methodology for grid-connected electricity generation from renewable sources	1,3,7	14-Dec-07	194
	AM0019	2	Renewable energy project activities replacing part of the electricity production of one single fossil-fuel-fired power plant that stands alone or supplies electricity to a grid, excluding biomass projects	1	19-May-06	0
Renewable energy	AM0026	3	Methodology for zero-emissions grid-connected electricity generation from renewable sources in Chile or in countries with merit order based dispatch grid	1,7	2-Nov-07	3
energy	AMS-I.A.	12	Electricity generation by the user		10-Aug-07	8
	AMS-I.B.	10	Mechanical energy for the user with or without electrical energy		10-Aug-07	0
	AMS-I.C.	13	Thermal energy for the user with or without electricity		28-Mar-08	54
	AMS-I.D. 13 Grid connected renewable electricity generation		Grid connected renewable electricity generation		14-Dec-07	350
	ACM0006	6	Consolidated methodology for electricity generation from biomass residues 2,3,4		10-Aug-07	73
	AM0007	1	Analysis of the least-cost fuel option for seasonally-operating biomass cogeneration plants		14-Jun-07	0
	AM0036	2	Fuel switch from fossil fuels to biomass residues in boilers for heat generation	1,4	10-Aug-07	2
Biomass	AM0042	2	Grid-connected electricity generation using biomass from newly developed dedicated plantations	1,7	2-Nov-07	0
	AMS-I.E.	1	Switch from non-renewable biomass for thermal application by the user		01-Feb-08	0
	AMS-III.E.	15.1	Avoidance of methane production from decay of biomass through controlled combustion, gasification or mechanical/thermal treatment		14-Dec-07	23

Key word	Number	Ver.	Name of the Approved Methodology	AM Tools*	Valid from	Reg*
	ACM0012	3	Consolidated baseline methodology for GHG emission reductions from waste energy recovery projects	1,7	16-Aug-08	57
	AM0009	3.1	Recovery and utilization of gas from oil wells that would otherwise be flared	2,3,5	14-Dec-07	4
	AM0024	2	Methodology for greenhouse gas reductions through waste heat recovery and utilization for power generation at cement plants	1,7	2-Nov-07	3
Wests ass	AM0037	2.1	Flare (or vent) reduction and utilization of gas from oil wells as a feedstock	1,3,5,7	28-Mar-08	2
Waste gas or heat	AM0055	1.1	Baseline and Monitoring Methodology for the recovery and utilization of waste gas in refinery facilities	2,5	27-Jul-07	0
	AM0066	1	GHG emission reductions through waste heat utilization for pre-heating of raw materials in sponge iron manufacturing process	2,3,5,7	14-Mar-08	0
	AMS-II.I.	1	Efficient utilization of waste energy in industrial facilities		30-May-08	0
	AMS-III.P.	1	Recovery and utilization of waste gas in refinery facilities		19-Oct-07	0
	AMS-III.Q.	1	Waste gas based energy systems		19-Oct-07	0
	ACM0009	3	Consolidated methodology for industrial fuel switching from coal or petroleum fuels to natural gas	1	28-Jul-06	10
	ACM0011	2.2	Consolidated baseline methodology for fuel switching from coal and/or petroleum fuels to natural gas in existing power plants for electricity generation	1,2,3,7	16-Aug-08	0
	ACM0013	2	Consolidated baseline and monitoring methodology for new grid connected fossil fuel fired power plants using a less GHG intensive technology	1,3	30-May-08	0
Fuel switch	AM0014	4	Natural gas-based package cogeneration	1	10-Aug-07	2
	AM0029	3	Methodology for Grid Connected Electricity Generation Plants using Natural Gas	1,7	30-May-08	10
	AM0048	2	New cogeneration facilities supplying electricity and/or steam to multiple customers and displacing grid/off-grid steam and electricity generation with more carbon-intensive fuels	1,7	2-Nov-07	0
	AMS-III.B.	13	Switching fossil fuels		16-Aug-08	10

Key word	Number	Ver.	Name of the Approved Methodology	AM Tools*	Valid from	Reg*
ACM0007		3	Methodology for conversion from single cycle to combined cycle power generation	2,7	2-Nov-07	1
	AM0017	2 Steam system efficiency improvements by replacing steam traps and returning condensate		22-Jun-05	0	
	AM0018	2.1	Steam optimization systems	1,3,5 _{30-N}		10
	AM0038	2	Methodology for improved electrical energy efficiency of an existing submerged electric arc furnace used for the production of SiMn			1
	AM0044	1	Energy efficiency improvement projects: boiler rehabilitation or replacement in industrial and district heating sectors	1	22-Dec-06	0
	AM0045	2	Grid connection of isolated electricity systems	1,7	2-Nov-07	1
	AM0049	2	Methodology for gas based energy generation in an industrial facility	1,7	2-Nov-07	0
Energy efficiency -	AM0052	2	Increased electricity generation from existing hydropower stations through Decision Support System optimization	1,7	2-Nov-07	0
supply side	AM0054	2	Energy efficiency improvement of a boiler by introducing oil/water emulsion technology	1,2,7	2-Nov-07	0
	AM0056	1	Efficiency improvement by boiler replacement or rehabilitation and optional fuel switch in fossil fuel-fired steam boiler systems	2,3	27-Jul-07	0
	AM0058	1	Introduction of a new primary district heating system	1,2,3	19-Oct-07	0
	AM0061	2	Methodology for rehabilitation and/or energy efficiency improvement in existing power plants	2,3,7	30-May-08	0
	AM0062	1.1	Energy efficiency improvements of a power plant through retrofitting turbines	2,3,7	30-Nov-07	0
	AMS-II.A.	9	Supply side energy efficiency improvements – transmission and distribution		10-Aug-07	0
	AMS-II.B.	9	Supply side energy efficiency improvements – generation		10-Aug-07	9
	AMS-III.M.	2	Reduction in consumption of electricity by recovering soda from paper manufacturing process		10-Aug-07	0

Classification based on the key words are made by the author, and not described in the UNFCCC documents. AM Tools*: Methodological tools which are referenced in the approved methodology. Please see Attachment 2 to identify the exact name of the AM tools. Reg*: Total number of registered CDM projects which applies the listed methodology (including previous and replaced versions) as of August 02, 2008.

There is "Note on tools and guidance on energy efficiency methodologies". [EB41 Anx13]

Key word	Number	Ver.	Name of the Approved Methodology	AM Tools*	Valid from	Reg*
	AM0020	2	Baseline methodology for water pumping efficiency improvements	1,7	2-Nov-07	0
	AM0046	2	Distribution of efficient light bulbs to households	1,7	2-Nov-07	0
	AM0060	1.1	Power saving through replacement by energy efficient chillers	2,7	30-Nov-07	0
	AM0067	2	Methodologies for installation of energy efficient transformers in a power distribution grid	2,7	02-Aug-08	0
Energy	AM0068	1	Methodology for improved energy efficiency by modifying ferroalloy production facility	2,5	30-May-80	0
efficiency -	AMS-II.C.	10	Demand-side energy efficiency activities for specific technologies		02-Aug-08	4
demand	AMS-II.D.	11	Energy efficiency and fuel switching measures for industrial facilities		2-Nov-07	31
side	AMS-II.E.	10	Energy efficiency and fuel switching measures for buildings		2-Nov-07	5
	AMS-II.F.	9	Energy efficiency and fuel switching measures for agricultural facilities and activities		10-Aug-07	0
	AMS-II.G.	1	Energy efficiency measures in thermal applications of non-renewable biomass		01-Feb-08	0
	AMS-II.H	1	Energy efficiency measures through centralization of utility provisions of an industrial facility	7	14-Mar-08	0
	AMS-II.J.	1	Demand-side activities for efficient lighting technologies		02-Aug-08	0

Classification based on the key words are made by the author, and not described in the UNFCCC documents. AM Tools*: Methodological tools which are referenced in the approved methodology. Please see Attachment 2 to identify the exact name of the AM tools. Reg*: Total number of registered CDM projects which applies the listed methodology (including previous and replaced versions) as of August 02, 2008.

There is "Note on tools and guidance on energy efficiency methodologies". [EB41 Anx13]

Key word	Number	Ver.	Name of the Approved Methodology	AM Tools*	Valid from	Reg*
Biofuel	AM0047	2	Production of biodiesel based on waste oils and/or waste fats from biogenic origin for use as fuel	1	10-Aug-07	0
	AMS-III.T.	1	Plant oil production and use for transport applications		30-Nov-07	0
The second stat	AM0031	1	Methodology for Bus Rapid Transit Projects	1	28-Jul-06	1
Transportat ion	AMS-III.C.	11	Emission reductions by low-greenhouse gas emitting vehicles		10-Aug-07	1
	AMS-III.S.	1	Introduction of low-emission vehicles to commercial vehicle fleets		30-Nov-07	0
	ACM0003	7	Emissions reduction through partial substitution of fossil fuels with alternative fuels or less carbon intensive fuels in cement manufacture	2,3,4,5	14-Dec-07	8
Cement	ACM0005	4	Consolidated Methodology for Increasing the Blend in Cement Production	1,7	2-Nov-07	14
Cement	ACM0015	1	Consolidated baseline and monitoring methodology for project activities using alternative raw materials that do not contain carbonates for clinker manufacturing in cement kilns	1,7	30-Nov-07	0
	AM0027	2.1	Substitution of CO ₂ from fossil or mineral origin by CO ₂ from renewable sources in the production of inorganic compounds		6-Oct-06	1
	AM0050	2.1	Feed switch in integrated Ammonia-urea manufacturing industry	2,7	2-Nov-07	0
Material	AM0057	2.1	Avoided emissions from biomass wastes through use as feed stock in pulp and paper production or in bio-oil production	1,3,4,5,6	14-Dec-07	0
use	AM0063	1.1	Recovery of CO_2 from tail gas in industrial facilities to substitute the use of fossil fuels for production of CO_2	1,2,3,5,7	30-Nov-07	0
	AMS-III.J.	3	Avoidance of fossil fuel combustion for carbon dioxide production to be used as raw material for industrial processes		10-Aug-07	0
	AMS-III.O.	1	Hydrogen production using methane extracted from biogas		19-Oct-07	0
Others	AMS-III.A.	1	Urea offset by inoculant application in soybean-corn rotations on acidic soils on existing		16-May-08	0

Number	Ver.	Name of the Approved Methodology	AM Tools*	Valid from	Reg*
ACM00104Consolidated methodology for GHG emission reductions from manure management systemsACM00142Mitigation of greenhouse gas emissions from treatment of industrial way AM0053AM00531.1Biogenic methane injection to a natural gas distribution grid			3,5,6	30-May-08	51
		Mitigation of greenhouse gas emissions from treatment of industrial wastewater	1,3,5,6,7	28-Mar-07	8
		Biogenic methane injection to a natural gas distribution grid	1,3,5,6	22-Jun-07	0
AM0069	1	Biogenic methane use as feedstock and fuel for town gas production	1,2,3,5	16-Aug-08	0
AMS-III.D.	14	Methane recovery in animal manure management systems		28-Mar-07	100
AMS-III.H.	9	Methane recovery in wastewater treatment		28-Mar-07	13
AMS-III.I.	6	Avoidance of methane production in wastewater treatment through replacement of anaerobic lagoons by aerobic systems		10-Aug-07	3
ACM0001	9	Consolidated baseline and monitoring methodology for landfill gas project activities	1,2,3,4,5,6	16-Aug-08	75
AMS-III.G.	6	Landfill methane recovery		28-Mar-08	3
AM0025	10	Avoided emissions from organic waste through alternative waste treatment processes	1,4,6,7	2-Nov-07	5
AM0039	2	Methane emissions reduction from organic waste water and bioorganic solid waste using co-composting	1,4	2-Nov-07	1
AMS-III.F.	6	Avoidance of methane emissions through controlled biological treatment of biomass		16-Aug-08	6
ACM0008	4	Consolidated methodology for coal bed methane, coal mine methane and ventilation air methane capture and use for power (electrical or motive) and heat and/or destruction by flaring or catalytic oxidation	1,6,7	2-Nov-07	8
AM0064	1.1	Methodology for mine methane capture and utilisation or destruction in underground, hard rock, precious and base metal mines	1,2,3,5,6,7	30-Nov-07	C
AM0023	2	Leak reduction from natural gas pipeline compressor or gate stations		18-May-07	0
AM0043	2	Leak reduction from a natural gas distribution grid by replacing old cast iron pipes or steel pipes without cathodic protection with polyethylene pipes	1	2-Nov-07	C
AM0041	1	Mitigation of Methane Emissions in the Wood Carbonization Activity for Charcoal Production	1	2-Nov-06	1
AMS-III.K.	3	Avoidance of methane release from charcoal production by shifting from pit method to mechanized charcoaling process		2-Nov-07	C
AMS-III.L.	2	Avoidance of methane production from biomass decay through controlled pyrolysis		10-Aug-07	0
	ACM0010 ACM0014 AM0053 AM0069 AMS-III.D. AMS-III.I. AMS-III.G. AM0025 AM0039 AMS-III.F. AM0039 AMS-III.F. AM0064 AM0043 AM0041 AM0041	ACM0014 2 AM0053 1.1 AM0069 1 AMS-III.D. 14 AMS-III.D. 9 AMS-III.I. 9 AMS-III.I. 9 AMS-III.I. 9 AMS-III.I. 10 AMS-III.I. 9 AMS-III.I. 10 AM0039 2 AM0039 2 AMO039 2 AM0039 2 AM0039 1.1 AM0041 1.1 AM0041 1 AMS-III.K. 3	ACM0010 4 Consolidated methodology for GHG emission reductions from manure management systems ACM0014 2 Mitigation of greenhouse gas emissions from treatment of industrial wastewater AM0053 1.1 Biogenic methane injection to a natural gas distribution grid AM0069 1 Biogenic methane use as feedstock and fuel for town gas production AMS-III.D. 14 Methane recovery in animal manure management systems AMS-III.H. 9 Methane recovery in wastewater treatment AMS-III.I. 6 Avoidance of methane production in wastewater treatment through replacement of anaerobic lagoons by aerobic systems ACM0001 9 Consolidated baseline and monitoring methodology for landfill gas project activities ACM0025 10 Avoided emissions from organic waste through alternative waste treatment processes AM0039 2 Methane emissions reduction from organic waste water and bioorganic solid waste using co-composting AMS-III.F. 6 Avoidance of methane capture and use for power (electrical or motive) and heat and/or destruction by flaring or catalytic oxidation AM0008 1 Methodology for mane methane capture and utilisation or destruction in underground, hard rock, precious and base metal mines AM0003 2 Leak reduction from natural gas distributing rid	ACM00104Consolidated methodology for GHG emission reductions from manure management systems3,5,6ACM00142Mitigation of greenhouse gas emissions from treatment of industrial wastewater1,3,5,6,7AM00531.1Biogenic methane injection to a natural gas distribution grid1,3,5,6,7AM00691Biogenic methane use as feedstock and fuel for town gas production1,2,3,5,6AMS-III.D.14Methane recovery in animal manure management systems1AMS-III.H9Methane recovery in wastewater treatment1AMS-III.I.6Avoidance of methane production in wastewater treatment through replacement of anaerobic lagoons by aerobic systems1,2,3,4,5,6ACM00019Consolidated baseline and monitoring methodology for landfill gas project activities1,2,3,4,5,6ACM002510Avoided emissions from organic waste through alternative waste treatment processes 	ACM0010 4 Consolidated methodology for GHG emission reductions from manure management systems 3,5,6 30-May-08 ACM0014 2 Mitigation of greenhouse gas emissions from treatment of industrial wastewater 1,3,5,6,7 28-Mar-07 AM0053 1.1 Biogenic methane injection to a natural gas distribution grid 1,2,3,5 16-Aug-08 AM0069 1 Biogenic methane use as feedstock and fuel for town gas production 1,2,3,5 16-Aug-08 AMS-III_I. 14 Methane recovery in animal manure management systems 28-Mar-07 AMS-III_I. 6 Avoidance of methane production in wastewater treatment 10-Aug-07 AMS-III_I. 6 Avoidance of methane production in wastewater treatment through replacement of anaerobic lagoons by aerobic systems 10-Aug-07 ACM0001 9 Consolidated baseline and monitoring methodology for landfill gas project activities 1,4,6,7 2-Nor-07 AMM0025 10 Avoidance of methane recovery 28-Mar-08 1.4,6,7 2-Nor-07 AMM0025 10 Avoided emissions reduction from organic waste water and biogranic solid waste using co-composting 1,4 2-Nor-07 AMM0008

Key word	Number	Ver.	Name of the Approved Methodology	AM Tools*	Valid from	Reg*
	AM0021	2.1	Baseline Methodology for decomposition of N_2O from existing adipic acid production plants	3,5	14-Dec-07	4
NO	AM0028	4.2	Catalytic N ₂ O destruction in the tail gas of Nitric Acid or Caprolactam Production Plants	1	16-Aug-08	12
N ₂ O	AM0034	3.1	Catalytic reduction of N_2O inside the ammonia burner of nitric acid plants	1	16-Aug-08	23
	AM0051	2	Secondary catalytic N_2O destruction in nitric acid plants	1	2-Nov-07	0
	AM0001	5.2	Incineration of HFC23 Waste Streams (also see "Guidance on Accounting Eligible HFC-23" [EB39 Anx8])		22-Dec-06	17
HFCs,	AM0030		PFC emission reductions from anode effect mitigation at primary aluminium smelting facilities	1	14-Dec-07	1
PFCs, and	AM0035	1	SF ₆ Emission Reductions in Electrical Grids	1	29-Sep-06	0
SF ₆	AM0059	1.1	Reduction in GHGs emission from primary aluminium smelters	2,5,7	19-Oct-07	0
	AM0065	2	Replacement of SF ₆ with alternate cover gas in the magnesium industry	2	16-Aug-08	0
	AMS-III.N.	2	Avoidance of HFC emissions in rigid Poly Urethane Foam (PUF) manufacturing		10-Aug-07	0

Key word	Number	Ver.	Name of the Approved A/R Methodology	AR-AM Tools*	Valid from	Reg*
	AR-ACM0001	1	Afforestation and reforestation of degraded land	2,3,4,5,6,7,8, 9,10	14-Mar-08	0
	AR-AM0001	R-AM0001 2 Reforestation of degraded land	1	19-May-06	1	
	AR-AM0002	1	Restoration of degraded lands through afforestation/reforestation	1	19-May-06	0
	AR-AM0004	2	Reforestation or afforestation of land currently under agricultural use	1	14-Dec-07	0
	AR-AM0005	1	Afforestation and reforestation project activities implemented for industrial and/or commercial uses	1	22-Dec-06	0
	AR-AM0006	1	Afforestation/Reforestation with Trees Supported by Shrubs on Degraded Land	1	16-Feb-07	0
Afforestation	AR-AM0007	2	Afforestation and Reforestation of Land Currently Under Agricultural or Pastoral Use	1	14-Dec-07	0
and	AR-AM0008	2	Afforestation or reforestation on degraded land for sustainable wood production	1,3	14-Dec-07	0
reforestation	AR-AM0009	2	Afforestation or reforestation on degraded land allowing for silvopastoral activities	1,3,5,6,7	14-Dec-07	0
	AR-AM0010	2	Afforestation and reforestation project activities implemented on unmanaged grassland in reserve/protected areas	1,3,5,6,7	14-Dec-07	0
	AR-AMS0001	4.1	Simplified baseline and monitoring methodologies for small-scale afforestation and reforestation project activities under the clean development mechanism implemented on grasslands or croplands	14	10-Aug-07	0
	AR-AMS0002	1	Simplified baseline and monitoring methodologies for small-scale afforestation and reforestation project activities under the CDM implemented on settlements	14	14-Dec-07	0
	AR-AMS0003	1	Simplified baseline and monitoring methodology for small scale CDM afforestation and reforestation project activities implemented on wetlands	14	14-Dec-07	0

Attachment 4. Tool for the demonstration and assessment of additionality

The use of this tool is not mandatory for PPs when proposing new methodologies. PPs may propose alternative methods to demonstrate additionality for consideration by the EB, or submit revisions to approved methodologies(AMs) using this tool. But once this tool is included in an AM, its application by PPs using this methodology is mandatory.

Project activities with a start date before the date of validation shall specifically take into account the guidance provided in PDD GL.

Step 1. Identification of alternatives to the project activity consistent with current laws and regulations

Sub-step 1a. Define alternatives to the project activity:

Identify realistic and credible alternative scenario(s) available to the PPs or similar project developers that provide outputs or services comparable with the proposed CDM project activity.

Sub-step 1b. Consistency with mandatory laws and regulations:

- The alternative scenario(s) shall be in compliance with all mandatory applicable legal and regulatory requirements. If an alternative does not comply with all mandatory applicable legislation and regulations, then show that those applicable legal or regulatory requirements are systematically not enforced;
- Figure 16 the proposed project activity is the only alternative amongst the ones considered by the PPs that is in compliance with all mandatory regulations with which there is general compliance, then the proposed CDM project activity is not additional.

Pas	S
Step 2 or Step 3, or both	step 2 and step 3
 Step 2. Investment analysis (also see "Guidance on the Assessm Determine whether the proposed project activity is not the most eco inancially feasible, without the revenue from the sale of CERs. Sub-step 2a. Determine appropriate analysis method : If the CDM project activity and the alternatives identified in Step 1 ger income, then apply Option I below. Otherwise, use Option II or Option Sub-step 2b. 	pnomically or financially attractive, or economically or nerates no financial or economic benefits other than CDM related
Option I. Apply simple cost analysisOption II. Apply investment comparison analysisImage: Document the costs associated with the CDM project activity and demonstrate that there is at least one alternative which is less costly than the project activity.Option II. Apply investment comparison analysisImage: Document the costs associated with the CDM project activity and demonstrate that there is at least one alternative which is less costly than the project activity.Image: Document the costs associated image: Document the	 Option III. Apply benchmark analysis ☞ Identify the financial/economic indicator, such as IRR. The financial/economic analysis shall be based on parameters that are standard in the market but not linked to the subjective profitability. ☞ Only in the particular case where the project activity can be implemented by the PP, the specific financial/economic situation of the company undertaking the project activity can be considered.

Sub-step 2c. Calculation and comparison of financial indicators (only applicable to options II and III):

Present in the CDM-PDD a clear comparison of the financial indicator for the proposed CDM activity and:

⇒ (a) The alternatives, if Option II (investment comparison analysis) is used, or (b) the financial benchmark, if Option III (benchmark analysis) is used.
 If the CDM project activity has a less favourable indicator, then the CDM project activity cannot be considered as financially attractive.

Sub-step 2d. Sensitivity analysis (only applicable to options II and III) :

Include a sensitivity analysis that shows whether the conclusion is robust to reasonable variations in the critical assumptions. The EB agreed to clarify that investment analysis should be prepared within the context of the underlying project activity and should therefore not be limited to the proposed CDM crediting period. [EB35 Rep para77]

Step 3. Barrier analysis

Determine whether the proposed project activity faces barriers that prevent the implementation of this type of proposed project activity, and do not prevent the implementation of at least one of the alternatives. Provide transparent and documented evidence, and offer conservative interpretations of this documented evidence, as to how it demonstrates the existence and significance of the identified barriers.

If the CDM does not alleviate the identified barriers that prevent the proposed project activity from occurring, then the project activity is not additional.

Sub-step 3a. Identify barriers that would prevent the implementation of type of the proposed project activity:

Establish that there are realistic and credible barriers that would prevent the implementation of the type of proposed project activity from being carried out if the project activity was not registered as a CDM activity. Such barriers may include, among others, investment barriers other than the economic/financial barriers in Step 2 above, technological barriers, barriers due to prevailing practice and other barriers.

Sub-step 3 b. Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity):

If the identified barriers also affect other alternatives, explain how they are affected less strongly than they affect the proposed CDM project activity.

Step 4. Common practice analysis

Pass

Unless the proposed project type has demonstrated to be first-of-its kind (according to Sub-step 3a), the above generic additionality tests shall be complemented with an analysis of the extent to which the proposed project type has already diffused in the relevant sector and region. This test is a credibility check to complement the investment analysis (**Step 2**) or barrier analysis (**Step 3**).

Sub-step 4a. Analyze other activities similar to the proposed project activity:

Provide an analysis of any other activities that are operational and that are similar to the proposed project activity. Other CDM project activities (registered project activities and project activities which have been published on the UNFCCC website as part of the validation process) are not to be included in this analysis.

Sub-step 4b. Discuss any similar options that are occurring:

If similar activities are identified above, then it is necessary to demonstrate why the existence of these activities does not contradict the claim that the proposed project activity is financially/economically unattractive or subject to barriers.

The EB clarified that in the context of conducting common practice analysis, PPs may exclude registered CDM project activities and project activities which have been published on the UNFCCC CDM website as part of the validation process. [EB38 Rep, para60]

Pass

The proposed CDM project activity is additional

Attachment 5. Guidance on the assessment of investment analysis

(Version 02)[EB41 Anx45]

 Specific Guidance on the Calculation of Project IRR and Equity IRR [EB41 Anx45 para9-10] The cost of financing expenditures (i.e. loan repayments and interest) should not be included in the calculation of project IRR. In the calculation of equity IRR only the portion of investment costs which is financed by equity should be considered as the net cash outflow, the portion of the investment costs which is financed by debt should not be considered a cash outflow. 	 If the proposed baseline scenario leaves the choice than to make an investment to supply products or services, a benchmark analysis investment comparison analysis shall be us project activity is the supply of electricity from considered an investment and a benchmark appropriate. 	e project participant no other y the same (or substitute) is not appropriate and an ed. If the alternative to the m a grid this is not to be
 Selection and Validation of Appropriate Benchmarks [EB41 Anx45 particular intervention of a properties and the properties of the properties are appropriate benchmarks for a project IRR. Required/expected equity are appropriate benchmarks for an equity IRR. Benchmarks by relevant national authorities are also appropriate if the DOE can that they are applicable to the project activity. In the cases of projects which could be developed by an entity off PP the benchmark should be based on publicly available data sources may includent they are applicable to the DOE. Such data sources may includent and borrowing rates, equity indices, or benchmarks deterr relevant national authorities. The DOE's validation of such benchmark applied context of the underlying project activity. Internal company benchmarks/expected returns should only be appropriated to have been used for similar projects with similar redeveloped by the same company or, if the company is brand new have been used for similar projects. Risk premiums applied in the determination of required returns on shall reflect the risk profile of the project activity being assessed, according to national/international accounting principles. It is not or reasonable to apply the rate general stock market returns as a risk for project activities that face a different risk profile than an investion. 	(WACC)Image: Only variables, including the inconstitute more than 20% of eigenpolied project revenues should be sub- (all parameters varied need no- both negative and positive varial and the results of this variation PDD and be reproducible in the PDD and be reproducible in the Where a DOE considers that a than 20% have a material imparaise a corrective action request sensitivity analysis.Image: the sensitivity analy	itial investment cost, that ther total project costs or total bjected to reasonable variation it necessarily be subjected to ations of the same magnitude), should be presented in the e associated spreadsheets. variable which constitute less act on the analysis they shall st to include this variable in the ail whether the range of project context. Past trends he reasonable range. As a ations in the sensitivity analysis of +10% and -10%, unless this he context of the specific s where a scenario will result in benchmark or becoming the native the DOE shall provide ty of the occurrence of this likelihood of the assumptions in ysis, taking into consideration bles as well as the specific next of the project activity.
such indices.		

Attachment 6. Tool to calculate the emission factor for an electricity system

(Version 01)[EB35 Anx12]

Scope and applicability

- This tool may be referred to in order to estimate the CO₂ emission factor for the purpose of calculating baseline emissions for a project activity substitutes electricity from the grid, i.e.
 - where a project activity supplies electricity to a grid,
 - er or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).
- Note that this tool is also referred to in the "Tool to calculate project emissions from electricity consumption" for the purpose of calculating project and leakage emissions in case where a project activity consumes electricity from the grid or results in increase of consumption of electricity from the grid outside the project boundary.
- This tool provides procedures to determine the following three parameters (Unit: t-CO₂/MWh):

EF _{grid,OM,y}	Operating margin (OM) CO ₂ emission factor for grid connected power generation in year <i>y</i>	OM means a cohort of power plants that reflect the existing power plants whose electricity generation would be affected by the proposed CDM project activity				
EF _{grid,BM,y}	Build margin (BM) CO ₂ emission factor for grid connected power generation in year <i>y</i> BM means a cohort of power units that reflect the type of power units whose construction would be affected by the proposed CDM project activity					
	Combined margin (CM) CO ₂ emission factor for grid connected power generation in year y $EF_{grid,CM,y} = EF_{grid,OM,y} \times w_{OM} + EF_{grid,BM,y} \times w_{BM} (w_{OM} + w_{BM} = 1)$					

Baseline methodology procedure

Step 1. Identify the relevant electric power system

Step 2. Select an operating margin (OM) method

Step 3. Calculate the operating margin (OM) emission factor according to the selected method

Step 4. Identify the cohort of power units to be included in the build margin (BM)

Step 5. Calculate the build margin (BM) emission factor

Step 6. Calculate the combined margin (CM) emissions factor

Step 1. Identify the relevant electric power system

A project electricity system	Electricity import	A connected electricity system	
the spatial extent of the power plants that are		An electricity system (e.g. national or international)	
physically connected through transmission		that is connected by transmission lines to the	
and distribution lines to the project activity (e.g.	Electricity export	project electricity system. Power plants within the	
the renewable power plant location or the		connected electricity system can be dispatched	
consumers where electricity is being saved)	Significant	without significant transmission constraints but	
and that can be dispatched without significant	transmission	transmission to the project electricity system has	
transmission constraints.	constraint	significant transmission constraint.	
If the DNA of the bost country has published a delineation of the project electricity system and connected electricity systems, these			

- ♦ If the DNA of the host country has published a delineation of the project electricity system and connected electricity systems, these delineations should be used.
- ♦If such delineations are not available, PPs should define the project electricity system and any connected electricity system and justify and document their assumptions in the CDM-PDD. In doing, so the following criteria can be used to determine the existence of significant transmission constraints:
- In case of electricity systems with spot markets for electricity: there are differences in electricity prices (without transmission and distribution costs) of more than 5 percent between the systems during 60 percent or more of the hours of the year.
- The transmission line is operated at 90% or more of its rated capacity during 90% percent or more of the hours of the year.
- Where the application of these criteria does not result in a clear grid boundary, use a regional grid definition in the case of large countries with layered dispatch systems (e.g. provincial / regional / national). A provincial grid definition may indeed in many cases be too narrow given significant electricity trade among provinces that might be affected, directly or indirectly, by a CDM project activity. In other countries, the national (or other largest) grid definition should be used by default.

In case of determining the operating margin (OM) emission factor

- Use one of the following options to determine the CO₂ emission factor(s) for net electricity imports (EF_{grid,import,y}) from a <u>connected</u> <u>electricity system within the same host country(ies)</u>:
 - \Rightarrow (a) 0 t-CO₂/MWh, or
 - \Rightarrow (b) The weighted average operating margin emission rate of the exporting grid, determined as described in step 3 (d) below; or
 - ⇒ (c) The simple operating margin emission rate of the exporting grid, determined as described in step 3 (a), if the conditions for this method, as described in step 2 below, apply to the exporting grid; or
 - \Rightarrow (d) The simple adjusted operating margin emission rate of the exporting grid, determined as described in step 3 (b) below.
- For imports from <u>connected electricity systems located in another host country(ies)</u>, the emission factor is 0 tons CO₂ per MWh. Electricity exports should not be subtracted from electricity generation data used for calculating and monitoring the electricity emission factors.

In case of determining the build margin (BM) emission factor

The spatial extent is limited to the project electricity system, except where recent or likely future additions to transmission capacity enable significant increases in imported electricity. In such cases, the transmission capacity may be considered a build margin source.

Step 2. Select an operating margin (OM) method

- The calculation of the operating margin emission factor (EF_{arid OM v}) is based on one of the following 4 methods, and any of the methods (each method is described under Step 3) can be used basically.
- The data vintage chosen should be documented in the CDM-PDD and not be changed during the crediting periods.
- Power plants registered as CDM project activities should be included in the sample group that is used to calculate the operating margin if the criteria for including the power source in the sample group apply.

(a) Simple OM (b) Simple adjusted OM (d) Average	OM (c) Dispatch data analysis OM
 The simple OM method can only be used if low-cost/must-run resources constitute less than 50% of total grid generation in: I) average of the five most recent years, or 2) based on long-term averages for hydroelectricity production. ⇒Low-cost/must-run resources are defined as power plants with low marginal generation costs or power plants that are dispatched independently of the daily or seasonal load of the grid. They typically include hydro, geothermal, wind, low-cost biomass, nuclear and solar generation. If coal is obviously used as must-run, it should also be included in this list. 	For the dispatch data analysis OM , use the year in which the project activity displaces grid electricity and update the emission factor annually during monitoring.
For the simple OM, the simple adjusted OM and the average OM , the 2 following data vintages:	emissions factor can be calculated using either of the

- Ex ante option: A 3-year generation-weighted average, based on the most recent data available at the time of submission of the CDM-PDD to the DOE for validation, without requirement to monitor and recalculate the emissions factor during the crediting period, or
- Ex post option: The year in which the project activity displaces grid electricity, requiring the emissions factor to be updated annually during monitoring. If the data required to calculate the emission factor for year y is usually only available later than 6 months after the end of year y, alternatively the emission factor of the previous year (y-1) may be used. If the data is usually only available 18 months after the end of year y, the emission factor of the year proceeding the previous year (y-2) may be used. The same data vintage (y, y-1 or y-2) should be used throughout all crediting periods.

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Step 3. Calculate the operating margin (OM) emission factor according to the selected method (1/2)

(a) Simple OM

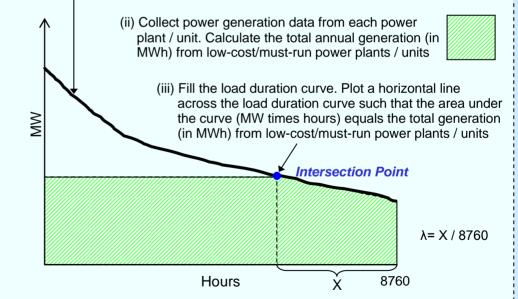
- ◆The simple OM emission factor is calculated as the generation-weighted average CO₂ emissions per unit net electricity generation (t-CO₂/MWh) of all generating power plants serving the system, not including low-cost / must-run power plants / units. It may be calculated:
 - Option A: Based on data on fuel consumption and net electricity generation of each power plant / unit
 - Option B: Based on data on net electricity generation, the average efficiency of each power unit and the fuel type(s) used in each power unit (There are 3 suboptions subject to data availability)
 - ⇒ Option B1: In case for data for a power unit on fuel consumption and electricity generation is available
 - ⇒ **Option B2**: In case for only data for a power unit on electricity generation and the fuel types used is available, the emission factor should be determined based on the CO_2 emission factor of the fuel type used and the efficiency of the power unit
 - ⇒ Option B3: In case for only data for a power unit on electricity generation is available, an emission factor of 0 tCO₂/MWh can be assumed as a simple and conservative approach.
 - Option C: Based on data on the total net electricity generation of all power plants serving the system and the fuel types and total fuel consumption of the project electricity system.
- ♦Option A should be preferred and must be used if the data is available for each power plant / unit. In other cases, option B or option C can be used. For the purpose of calculating the simple OM, Option C should only be used if the necessary data for option A and option B is not available and can only be used if only nuclear and renewable power generation are considered as low-cost / must-run power sources and if the quantity of electricity supplied to the grid by these sources is known.

(b) Simple adjusted OM

- The simple adjusted OM emission factor is a variation of the simple OM, where the power plants / units (including imports) are separated in low-cost/must-run power sources and other power sources.
- ♦ As with the simple OM, it can be calculated by Option A or Option B (see the left). Option A should be preferred and must be used if data is available. In other cases, option B can be used. Option C is not applicable to the simple adjusted OM.

How to calculate λy for the Simple Adjusted OM

(i) Plot a **load duration curve**. Collect chronological load data (typically in MW) for each hour of the year y, and sort the load data from the highest to the lowest MW level. Plot MW against 8760 hours in the year, in descending order.



(iv) Determine the "Number of hours for which low-cost/must-run sources are on the margin in year y". First, locate the intersection of the horizontal line plotted in step (iii) and the load duration curve plotted in step (i). The number of hours (out of the total of 8760 hours) to the right of the intersection is the number of hours for which low-cost/must-run sources are on the margin. If the lines do not intersect, then one may conclude that lowcost/must-run sources do not appear on the margin and λy is equal to zero.

Step 3. Calculate the operating margin (OM) emission factor according to the selected method (2/2)

(c) Dispatch data analysis OM (d) Average OM The dispatch data analysis OM emission factor is determined based on the power units The average OM emission factor is calculated as that are actually dispatched at the margin during each hour h where the project is the average emission rate of all power plants displacing electricity. serving the grid, using the methodological ♦ To determine the set of the power units that are in the top of the dispatch, obtain from a guidance as described under (a) above for the national dispatch centre: simple OM, but including in all equations also F The grid system dispatch order of operation for each power unit of the system low-cost/must-run power plants. including power units from which electricity is imported; and • Option A should be preferred and must be used F The amount of power (MWh) that is dispatched from all power units in the system if fuel consumption data is available for each during each hour h that the project activity is displacing electricity. power plant / unit. In other cases, option B or • At each hour h, stack each power unit's generation using the merit order. The group of option C can be used. Option C should only be the power units in the dispatch margin includes the units in the top x% of total electricity used if the necessary data for option A and dispatched in the hour h, where x% is equal to the greater of either: option B is not available. ☞ (a) 10%; or (b) The quantity of electricity displaced by the project activity during hour h divided by the total electricity generation in the grid during that hour h. This approach is not applicable to historical data and, thus, requires annual monitoring. F If hourly fuel consumption data is available, then the hourly emissions factor is determined for each plant. Otherwise, the hourly emissions factor is calculated based on the energy efficiency of the power unit and the fuel type used. ♦ The CO₂ emission factor of the power units should be determined as per the guidance for the simple OM, using the options B1, B2 or B3.

Attachment 6. Tool to calculate the emission factor for an electricity system

Step 4. Identify the cohort of power units to be included in the build margin (BM)

- The sample group of power units *m* used to calculate the build margin consists of the larger annual generation of either:
- ☞ (a) The set of five power units that have been built most recently, or
- (b) The set of power capacity additions in the electricity system that comprise 20% of the system generation (in MWh) and that have been built most recently.
 - \Rightarrow If 20% falls on part capacity of a unit, that unit is fully included in the calculation.
- ♦ As a general guidance, a power unit is considered to have been built at the date when it started to supply electricity to the grid.
- Power plant registered as CDM project activities should be excluded from the sample group *m*. However, If group of power units, not registered as CDM project activity, identified for estimating the BM emission factor includes power unit(s) that is(are) built more than 10 years ago then:
 (i) exclude power unit(s) that is (are) built more than 10 years ago from the group; and
 - (ii) include grid connected power projects registered as CDM project activities, which are dispatched by dispatching authority to the electricity system (This information shall be provided by the host country).
- Capacity additions from retrofits of power plants should not be included in the calculation of the BM emission factor.
- ♦ In terms of vintage of data, PPs can choose between one of the following two options:
- Option 1: For the 1st crediting period, calculate the BM emission factor *ex-ante* based on the most recent information available on units already built for sample group *m* at the time of CDM-PDD submission to the DOE for validation. For the 2nd crediting period, the BM emission factor should be updated based on the most recent information available on units already built at the time of submission of the request for renewal of the crediting period to the DOE. For the 3rd crediting period, the BM emission factor calculated for the 2nd crediting period should be used. This option does not require monitoring the emission factor during the crediting period.
- Option 2: For the 1st crediting period, the BM emission factor shall be updated annually, *ex-post*, including those units built up to the year of registration of the project activity or, if information up to the year of registration is not yet available, including those units built up to the latest year for which information is available. For the 2nd crediting period, the BM emissions factor shall be calculated *ex-ante*, as described in **option** 1 above. For the 3rd crediting period, the BM emission factor calculated for the 2nd crediting period should be used.
- ♦ The option chosen should be documented in the CDM-PDD.

Step 5. Calculate the build margin (BM) emission factor

- The BM emissions factor is the generation-weighted average emission factor (t-CO₂/MWh) of all power units *m* during the most recent year *y* for which power generation data is available.
- The CO₂ emission factor of each power unit *m* should be determined as per the guidance in step 3 (a) for the simple OM, using options B1, B2 or B3, using for *y* the most recent historical year for which power generation data is available, and using for *m* the power units included in the BM.

Step 6. Calculate the combined margin (CM) emissions factor

◆ The combined margin (CM) emissions factor is calculated as follows:

 $\mathsf{EF}_{\mathsf{grid},\mathsf{CM},\mathsf{y}} = \mathsf{EF}_{\mathsf{grid},\mathsf{OM},\mathsf{y}} \times \mathsf{w}_{\mathsf{OM}} + \mathsf{EF}_{\mathsf{grid},\mathsf{BM},\mathsf{y}} \times \mathsf{w}_{\mathsf{BM}}$

 $\Rightarrow EF_{grid,BM,y} = BM CO_2 \text{ emission factor in year } y (t-CO_2/MWh), \text{ and } EF_{grid,OM,y} = OM CO_2 \text{ emission factor in year } y (t-CO_2/MWh)$ $\Rightarrow w_{OM} = Weighting of operating margin emissions factor (%), \text{ and } w_{BM} = Weighting of build margin emissions factor (%)$

• The following default values should be used for w_{OM} and w_{BM} :

- Wind and solar power generation project activities: w_{OM} = 0.75 and w_{BM} = 0.25 (owing to their intermittent and non-dispatchable nature) for the 1st crediting period and for subsequent crediting periods.
- All other projects: w_{OM} = 0.5 and w_{BM} = 0.5 for the 1st crediting period, and w_{OM} = 0.25 and w_{BM} = 0.75 for the 2nd and 3rd crediting period, unless otherwise specified in the approved methodology (AM) which refers to this tool.
- Alternative weights can be proposed, as long as w_{OM} + w_{BM} = 1, for consideration by the EB, taking into account the guidance as described in the tool. The values for w_{OM} + w_{BM} applied by PPs should be fixed for a crediting period and may be revised at the renewal of the crediting period.

Monitoring methodology

The calculation of the OM and BM emission factors should be documented electronically in a spreadsheet that should be attached to the CDM-PDD. This should include all data used to calculate the emission factors, including:

- For each grid-connected power plant / unit the following information:
 - ⇒Information to clearly identify the plant, the date of commissioning, the capacity (MW), the fuel type(s) used, the quantity of net electricity generation in the relevant year(s), if applicable: the fuel consumption of each fuel type in the relevant year(s), in case where the simple OM or the simple adjusted operating margin is used: information whether the plant / unit is a low-cost / must-run plant / unit.
- Net calorific values used, CO₂ emission factors used, plant efficiencies used, identification of the plants included in the BM and the OM during the relevant time year(s), in case the simple adjusted OM is used: load data (typically in MW) for each hour of the year y.
- In case the dispatch data OM is used: for each hour h where the project plant is displacing grid electricity:
 - ⇒ The dispatch order of all grid-connected power plants, the total grid electricity demand, the quantity of electricity displaced by the project activity, identification of the plants that are in the top of the dispatch and for each plant information on electricity generation and, where hourly fuel consumption data is available, data on the types and quantities of fuels consumed during that hour.

The data should be presented in a manner that enables reproducing of the calculation of the BM and OM grid emission factor.

BOX: Default efficiency factors for power plants When calculating **the simple OM by option B2**, the default values provided in the table below can be used.

		Before 2000	After 2000
	Subcritical	37.0 %	39.0 %
	Supercritical		45.0 %
	Ultrasupercritical		50.0 %
Coal	IGCC (Integrated Gasification Combined Cycle)		50.0 %
oour	FBS (Fluidized Bed Combustion)	35.5 %	
	CFBS (Circulating Fluidized Bed Combustion)	36.5 %	40.0 %
	PFBS (Pressurized Fluidized Bed Combustion)		41.5 %
	Steam turbine	37.5 %	39.0 %
Oil	Open cycle	30.0 %	39.5 %
	Combined cycle	46.0 %	46.0 %
	Steam turbine	37.5 %	37.5 %
Gas	Open cycle	30.0 %	39.5 %
	Combined cycle	46.0 %	60.0 %

The following guidance serves to avoid double-counting of emission reductions that could occur in project activities if both biofuel production and biofuel use are eligible to generate CERs and where such double-counting could occur at different points in the production chain. [EB26 Anx12]

Type of biofuel project activities covered under the guidance

- Methodological proposals for the CDM project activities that seek to claim CERs from the substitution of fossil fuels by biofuels may be proposed for project activities where:
- The consumers (end-users) of biofuels claim CERs from displacing fossil fuel consumption with biofuel.
- The producer of biofuels claim CERs, for biofuel production, provided:
 - \Rightarrow the consumers, to whom the biofuel is sold, are included in the project boundary;
 - ⇒ the emissions reduction from use of biofuel are estimated based on monitored consumption by the consumers included within the project activity.

The EB further clarified to the guidance that project activities claiming CERs from the production of biofuels only, while not taking into account consumers (end-users) of these biofuels, are not eligible as CDM project activities.

[EB30 Rep, para14]

Export of biofuels to Annex I countries

No biofuel production exported to Annex I countries is eligible to claim CERs under the CDM.

Monitoring

- The methodology shall provide a monitoring scheme/framework with elements (e.g. electronic loggers) that can be used to verify without doubt the actual amount of biofuel consumed by the consumer (end user) for displacement of fossil fuels.
- The monitored elements of the consumption by the end-user shall correspond to the production of the biofuel and be used to calculate and claim emission reductions.
- The methodology for project activities undertaken by consumers of biofuel shall provide an estimate of leakage, which is measurable and attributable to the CDM project activity.

Cultivation, harvesting and preparation of biofuel

- Emissions associated with the production of biomass used to produce the biofuel shall be accounted for when calculating emission reductions achieved by the blended biofuel project activity.
- However, in the case that it can be demonstrated that the project activity is using biomass originating from a registered A/R project activity (i.e. through contractual agreement for procurement of biomass), emissions related to the production of the biomass need not be accounted for.

BOX: Combustion of biofuels [Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories: Reference Manual, 1.33] CO₂ emissions from the combustion of biomass fuels are not to be included in the total national CO₂ emissions.

Attachment 8. Global warming potential (GWP) and carbon emission factor (CEF)

- Global warming potential (GWP) is a measure of the relative radiative effect of GHGs compared to CO₂. GWP used by Parties should be those provided by the IPCC 2nd Assessment Report ("1995 IPCC GWP values") based on the effects of the GHGs over a 100-year time horizon [CP/1997/7/Ad1, p31 para3]. The value of GWP is fixed for the 1st commitment period, but it is subject to change for the subsequent commitment periods depending on new scientific findings.
- Carbon Emission Factor (CEF) is the estimated average carbon (or CO₂) emission rate for a given source, relative to units of activity. The EB agreed that the IPCC default values should be used only when country or project specific data are not available or difficult to obtain [EB25 Rep, para59]. The EB further clarified that the '2006 IPCC Guidelines for National Greenhouse Gas Inventories' was published on the IPCC website on 24 October 2006 after which this version shall be considered as the latest version. [EB28 Rep, para68]

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Species	Chemical formula	GWP	Species	Chemical formula	GWP
CO ₂	CO ₂	1	HFC-23	CHF ₃	11,700
Methane *	CH ₄	21	HFC-236fa	$C_3H_2F_6$	6,300
Nitrous oxide	N ₂ O	310	HFC-143a	$C_2H_3F_3$	3,800
Perfluoroethane	C_2F_6	9,200	HFC-134a	CH ₂ FCF ₃	1,300
Perfluoropentane	C_5F_{12}	7,500	HFC-134	$C_2H_2F_4$	1,000
Perfluorohexane	C ₆ F ₁₄	7,400	HFC-32	CH_2F_2	650
Sulphur hexafluoride	SF ₆	23,900	HFC-41	CH₃F	150

Global Warming Potential

Climate Change 1995: The Science of Climate Change, p. 22, Intergovernmental Panel on Climate Change, 1996.

General Conversion Factors for Energy

To:	TJ	Gcal	Mtoe	GWh
From:	From: Multiply by:			
TJ	1	238.8	2.388 x 10⁻⁵	0.2778
Gcal	4.1868 x 10 ⁻³	1	10 ⁻⁷	1.163 x 10 ⁻³
Mtoe	4.1868 x 10 ⁴	10 ⁷	1	11630
GWh	3.6	860	8.6x10 ⁻⁵	1

CO₂ Emissions from fuel combustion (2006 Edition), p.l.11, International Energy Agency, 2006.

Fossil fuel		CO ₂ emission factor (kg/TJ)	Net calorific value (TJ/Gg) Gg=1000t	CO ₂ emission factor (t-CO ₂ /t (Fuel))
Liquid Fossil	Crude Oil	73,300	42.3	3.101
	Motor Gasoline	69,300	44.3	3.070
	Other Kerosene	71,900	43.8	3.149
	Gas/Diesel Oil	74,100	43.0	3.186
	Liquefied Petroleum Gases	63,100	47.3	2.985
Solid Fossil	Anthracite	98,300	26.7	2.625
	Sub-Bituminous Coal	96,100	18.9	1.816
	Lignite	101,000	11.9	1.202
Gaseous Fossil	Natural Gas	56,100	48.0	2.693

Carbon Emission Factor

2006 IPCC Guidelines for National Greenhouse Gas Inventories, p. 1.18-1.24, Intergovernmental Panel on Climate Change, 2006.

[Default carbon oxidation factor is 1] [CO₂ emission factors t-CO₂/t (Fuel) are calculated for this document and do not appear in the IPCC guideline]

Important changes from previous version (Ver. 5.1 / May 2008)

Page	Chapter	Change
11	4-5. Designated Operational Entity (DOE)	Added the information source of the list of DOEs
12	4-5. Designated Operational Entity (DOE)	Modified "BOX: CDM validation and verification manual"
18	6. Making PDD	Added "CDM-SSC-Bundle ver.2" and "F-CDM-SSC-Subm ver.3"
27-28	8-1. Starting date of a CDM project activity	Inserted the new section
29	8-2. Crediting period	Updated the explanation of "The crediting period of a project activity", at the lower left
33	11-1. Procedures for validation	Added new explanation at the lower right
38	13. Revising a monitoring plan	Added "BOX: Change in the dates of a monitoring period"
47	18-2. Simplified modalities and procedures	Updated "BOX: Simplified baseline and monitoring methodologies"
50	19-1. Overview of A/R CDM	Added new explanation of "the procedure on change in the selected values" at the right.
67-68	Attachment 2. Methodological tools	Added new tools and updated versions of tools
69-76	Attachment 3. Approved methodologies	Updated and revised overall
79	Attachment 5. Guidance on the assessment of investment analysis	Inserted the new attachment

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