

Att.: JI Supervisory Committee

Your ref.

Our ref.

Place

Oslo, 15 August 2006

" Working Paper Guidance on Criteria for Baseline Setting and Monitoring "

ECON is pleased to submit its comments on the JI Supervisory Committee's Working Paper Guidance on Criteria for Baseline Setting and Monitoring.

Yours sincerely,

Jørgen Abildgaard

OSLO

Biskop Gunnerus' gate 14A
PO Box 5, N-0051 Oslo
Tel.: +47 45 40 50 00
Fax: +47 22 42 00 40
Enterprise No: NO 960416090

STAVANGER

Kirkegaten 3
4006 Stavanger
Tel.: +47 45 40 50 00

STOCKHOLM

Artillerigatan 42, 5 tr
SE-114 45 STOCKHOLM
Tel.: +46 8 698 8120
Fax: +46 8 698 8139
Enterprise No: SE 556461-0011

COPENHAGEN

Nansensgade 19, 6. sal
DK-1366 Copenhagen K
Tel.: +45 33 91 40 45
Fax: +45 33 91 40 46
cvr.nr. 26387965

PARIS

18, rue de la Perle
FR-75003 Paris
Tel.: +331 4461 9720
Fax: +331 4887 4439
Siret: 389950 684 00040

In general, the Working Paper produced by the JI Supervisory Committee is a good first attempt at a rather complicated issue. Baseline and monitoring criteria are relatively straight forward given the large body of work produced by the CDM Executive Board. In the JI context, however, these criteria are complicated by two issues. First, the JI Supervisory Committee does not have the ability to establish a process for developing methodologies such as that under the CDM. Secondly, rules established by host countries (in particular) can influence how projects are developed under the second track process.

All Parties participating in JI, whether as investor or host country, must establish its national guidelines and procedures for approving JI projects. This must include monitoring and verification but could also include any guidance or requirements for use of standardized baselines, such as multi project emissions factors.

The working paper attempts to provide guidance beyond that contained in the JI guidelines; however some key issues, such as the interaction and treatment of national requirements in relation to second track projects, are not addressed. This will be important information for both host countries and project developers, as this is not an issue that is as prevalent under the CDM. In addition, the Paper duplicates much of what is contained in the JI guidelines without providing more specific or detailed information. Although ECON realizes that it may be somewhat difficult to provide greater detail, it hopes that the revised version of the Working Paper can (at a minimum) fill in some of the gaps and at least provide project developers with pointers of where more detailed information might be obtained. ECON also believes that elements of the CDM Meth Panel paper Technical Guidelines for the Development of New Baseline and Monitoring Methodologies could provide additional guidance that is useful to project participants in developing baselines and monitoring plans. Although it is aimed at assisting project participants under the CDM, it provides practical, clear and useful information and guidance. Where appropriate, we have drawn on this paper in providing input to the JI Supervisory Committee Working Paper.

It may also be helpful for the JI Supervisory Committee to elaborate the role of baseline setting and monitoring, given the absence of a methodology process similar to the one under the CDM. Accredited Independent Entities will to some degree assume the role of the CDM Meth Panel in “approving” baseline and monitoring plans established outside the CDM methodology process. It should therefore be possible for a new body of work on baselines and monitoring to be established under the JI Supervisory Committee second track process. To the extent possible, baselines and monitoring plans should be clear and transparent in order for other project participants to use them/draw on them as a basis for establishing their own baseline and monitoring plans. In this respect, there is a large body of work established under the CDM Meth Panel that could be appropriate for project participants under JI.

In order to ensure comparability across projects and to assist in transparency across second track JI projects, ECON strongly suggests that the guidance provided by the JI Supervisory Committee includes Annex I to the CDM Meth Panel Technical Paper. This Annex contains a list of standard variables that project participants may find useful in developing baselines and monitoring plans and should provide consistency among

projects that will (in the end) assist the determination/verification process. In addition, the JI Working Paper should encourage or allow project participants to use the forthcoming “Methodology Modules” that are under development by the CDM Meth Panel. These modules are stand alone protocols aimed at particular emissions sources (e.g. methane from unmanaged waste disposal, emission factors for a connected electricity grid), and will be valuable for the JI baseline setting process as well.

Following are specific comments on the JI Supervisory Committee Working Paper.

B. Guidance on criteria for baseline setting

- 1) **Project boundary and Leakage.** Under the JI guidelines, project boundaries and leakage are treated and defined primarily under monitoring criteria (Appendix B, Section II).
 - a. **Project Boundary.** Neither the JI guidelines nor the Working Paper address the issue of project boundary completely. Project boundaries are relevant and must be defined not only for the proposed JI project but for the baseline scenario (what would have happened without the proposed project) and is used in estimating emission reductions. Project boundary is not defined in the JI guidelines, nor is it defined under Appendix B Section I on criteria for baseline setting. It may therefore be useful to include more specific information in the Criteria for baseline setting. The BASREC Handbook states: “*Project boundaries are notional boundaries within which the impacts and effects of the project on GHG emissions are considered and quantified. Project boundaries are used to help select the baseline scenario, determine which activities are considered significant and therefore must be included in both the baseline and proposed project, and will affect the calculation of emissions reductions by the project.*”
 - b. Paragraph 9 (b) states that project boundaries shall be *defined on the basis of a case-by-case assessment with regard to the criteria referred to in paragraph 9(a)*. It is unclear what this means. Does this mean that each project boundary must be determined individually regardless of whether, i.e., a CDM baseline methodology is used? It seems more appropriate to consider the emissions both within and outside the project boundary and assess them rather than the project boundary itself which is likely to be a rather generic exercise.
 - c. The JI Supervisory Committee may also consider requiring the use of a flow diagram to present the project boundary.
 - d. We suggests amending the first paragraph as follows:

9) *The project boundary of a JI project is defined as the notional boundaries within which the impacts and effects of the project on GHG emissions are considered and quantified. In addition, the project boundary is used to select the baseline scenario, determine which*

scenario and proposed JI project.

10) *In setting a project boundary the geographic area and activities under the JI project must be defined.*

11) *The project boundary of a JI project shall:*

(a) *Encompass all anthropogenic emissions by sources and/or removals by sinks of GHGs which are:*

(i) Under the control of the project participants;

(ii) Reasonably attributable to the project; and

(iii) Significant, i.e., as a rule of thumb, would by each source/sink account on average per year over the crediting period for more than X per cent of the annual average anthropogenic emissions by sources/anthropogenic removals by sinks of GHGs, or exceed an amount of XXX tonnes of CO₂ equivalent, whichever is lower; and

(b) *Identify direct and indirect emissions from sources and sinks owned or under the control of project participants, which could include:*

Direct on-site (e.g. fuel combustion and process emissions on the project site);

Direct off-site (e.g. emissions from grid electricity (in the case of energy efficiency projects) or district heat, and other upstream and downstream life cycle impacts);

Indirect on-site (e.g. rebound effects such as increased heating that may result from an insulation programme);

Indirect off-site (e.g. project effects that are typically referred to as leakage, either negative or positive, such as economy-wide response to project-induced changes in market prices or project induced increases in the penetration of low carbon technologies in other regions).

12) *Impacts and effects of the proposed JI project on GHG emissions should be estimated on a case-by-case assessment.*

13) *Describe and justify the physical delineation of the project boundary and the gases and sources included, bearing in mind that it shall encompass all anthropogenic emissions by sources of greenhouse gases that are significant and reasonably attributable to the project activity:*

(a) *Explain the physical delineation. Use a figure or flowchart if it would be helpful.*

(b) *Explicitly state all sources and gases included. Explain whether any sources related to the baseline or the project activity have been excluded, and if so, justify their exclusion. The following table(or a variation of it) may be used to state all sources and gases included:*

Emissions sources included in or excluded from the project boundary [add/delete gases and sources as needed]

	Source	Gas	Included?	Justification / Explanation
Baseline	e.g. Boiler Fuel Use	CO ₂		
		CH ₄		
		N ₂ O		
		CO ₂		
		CH ₄		
		N ₂ O		
		CO ₂		
		CH ₄		
		N ₂ O		
Project Activity		CO ₂		
		CH ₄		
		N ₂ O		
		CO ₂		
		CH ₄		
		N ₂ O		

14) When defining which emission sources should be considered in the project boundary, in the baseline scenario and in the calculation of leakage emissions, project participants should make

conservative assumptions, for example the magnitude of emission sources omitted in the calculation of project emissions and leakage effects (if positive) should be equal to or less than the magnitude of emission sources omitted in the calculation of baseline emissions.

- e. **Leakage.** Paragraph 10 of the Working Paper defines leakage as follows: Leakage is the net change of anthropogenic emissions by sources and/or removals by sinks of GHGs which occurs outside the

project boundary, and that can be measured and is **directly** attributable to the JI project. Under the definition provided in Appendix B, Section II, paragraph 4 (c) states: The identification of all potential sources of, and the collection and archiving of data on increased anthropogenic emissions by sources and/or reduced anthropogenic removals by sinks of greenhouse gases **outside the project boundary that are significant and reasonably attributable to the project during the crediting period**. In addition, leakage is defined in paragraph 4 (f) as: the net change of anthropogenic emissions by sources and/or removals by sinks of greenhouse gases which occurs outside the project boundary, and that is measurable and attributable to the Article 6 project.

- i. How does the Supervisory Committee account for this difference in definitions (which could in some cases be substantial or at least more complicated to determine) and can it provide more guidance on when leakage must be accounted for? Will there be a “significance threshold” that determines when leakage is considered directly/reasonably attributable to a project as with emissions in the project boundary? The CDM Meth Panel Technical Report provides the following guidance: *“When defining which emission sources should be considered in the project boundary, in the baseline scenario and in the calculation of leakage emissions, project participants should make conservative assumptions, for example the magnitude of emission sources omitted in the calculation of project emissions and leakage effects (if positive) should be equal to or less than the magnitude of emission sources omitted in the calculation of baseline emissions. (EB 22 Annex 2)”*
 - ii. Neither positive nor negative leakage is addressed. Does the JI Supervisory Committee have guidance on this?
- f. Baseline setting criteria must also address how leakage is determined and treated since it is not included in the JI guidelines. Following current paragraph 10, the JI Supervisory Committee should consider inserting a paragraph stating: *Project participant must undertake an assessment of the leakage potential of the proposed JI project. Where there is potential for leakage, the project participant must quantify it and, if considered significant and reasonably attributable to the project during the crediting period, deduct an appropriate amount from the predicted GHG reductions. Explain which sources of leakage are to be calculated, and which can be neglected. Even if the calculation of the leakage is to be performed ex-post, the procedure should include the calculation of an ex-ante estimate.*

10) Leakage is the net change of anthropogenic emissions by sources and/or removals by sinks of GHGs which occurs outside the project boundary, and that can be measured and is directly attributable to the JI project.

11) Project participant must undertake an assessment of the leakage potential of the proposed

JI project and explain which sources of leakage are to be calculated, and which can be neglected. Where there is potential for leakage, the project participant must quantify it and, if considered significant and reasonably attributable to the project during the crediting period deduct an appropriate amount from the predicted GHG reductions. Even if the calculation of the leakage is to be performed ex-post, the procedure should include the calculation of an ex-ante estimate.

- 2) **Early JI projects.** The purpose of paragraph 11 is unclear as it does not relate to baseline setting. We believe that many project developers would benefit from additional information on how to define baselines for projects starting as of 2000. Are there specific issues that these projects must address or must they simply be able to address all criteria presented in the Working Paper? In particular, should the project participants be required to provide evidence that JI was seriously considered at the time of decision to invest in projects starting between 2000 and the date of determination?
- 3) **General Guidance.** Following section 2, ECON suggests adding a new section entitled “General Guidance on project emissions, baseline emissions and leakage effects”. This section is derived from the Meth Panel Technical Report and is included (with some minor edits) at the end of this paper. Please see Attachment 1. We believe that inclusion of such a section will assist project participants in finding appropriate sources for data and other pertinent information and will help provide a frame of reference for accredited IEs in making determinations on JI projects. We have also included a definition of transparent and conservative.
- 4) **Basic features of a baseline.** We suggest adding the following paragraph in front of current paragraph 12:

A baseline is composed of two basic components:

- (a) A baseline scenario, which is a narrative description of what would have occurred in the absence of the JI project; and*
- (b) Baseline emissions, which are a quantification of the greenhouse gas emissions in the baseline scenario, often expressed as an emissions factor, i.e. emissions per unit of product (e.g. tonne CO₂ per MWh of electricity).*

- 5) **Basic options for the establishment of a baseline.** It is unclear why the Working Paper suggest that use of a multi-project emissions factor requires additional justification. The JI guidelines clearly state that baselines can be established either on a project specific basis and/or using a multi-project emissions factor, **and** that any choice of baseline must be justified. We suggest

deleting the following sentence from paragraph 14: *A multi-project emission factor may be used if its application can be reasonably justified.* This sentence seems to go well beyond the JI guidelines since the use of multi-project emissions factor is specifically allowed. Adding a qualitative term such as “reasonably justified” could also serve to complicate the verification process as the JI Supervisory Committee would have to agree upon and provide guidance to accredited Independent Entities on what constitutes “reasonable.”

- 6) **Sections 4 and 5.** The JI Supervisory Committee should consider consolidating section 4 on basic options and section 5 on identification of a baseline. There is a certain amount of duplication that could serve to confuse rather than assist project participants.
- a) Paragraph 17 touches on national and/or sectoral policies and circumstances but does not address how these should be taken into account in setting a baseline. ECON suggests examining the CDM Meth Panel Technical Guidelines, Section B 2: Consideration of national and/or sectoral policies and circumstances in baseline scenarios. In particular it addresses the issue of when policies or regulations need not be taken (after a certain date) in order to prevent perverse incentive.
 - b) The second sentence in current paragraph 19 is unclear. ECON suggests deleting the sentence as it is difficult to ascertain and therefore judge what is “a comparable case” or is “theoretically applicable”. Although some aspects of the CDM and second track JI projects can be similar, there are large differences between the mechanisms and between the countries in which the projects occur. In addition, as the first sentence in paragraph 19 states, all projects must justify their choice of baseline.
 - c) Paragraph 20 contains three subparagraphs, of which only one seems relevant to baseline setting. Subparagraph (b) provides instructions to the Parties involved with a JI project and are not part of the baseline setting process, while subparagraph (c) provides instructions to accredited Independent Entities. We suggest that these subparagraphs be deleted, since they do not provide additional guidance and it is not clear whether they are consistent with the JI guidelines. It is also unclear why the JI Supervisory Committee is choosing to identify multi-project emissions factor as the only baseline choice that requires additional approvals. It would seem more appropriate to instruct project participants to ensure that the baseline is set in accordance with appendix B and any national guidelines established by Parties involved. If the JI Supervisory Committee is to require approval of baselines by Parties involved, it should inform project participants (as well as Parties involved and accredited Independent Entities) that this will be the required process under second track JI.

4. Basic options for the establishment of a baseline

13. A baseline shall be established on a project-specific basis and/or using a multi-project emission factor, taking into account the project boundary and in particular paragraph 20 below.

14. A multi-project emissions factor or standardized sector-wide baselines may e.g. be used if:

- (a) The physical characteristics of the sector justify the application of a standard emission factor across the sector (e.g. in the case of an integrated electricity network with no major transmission constraints, the physical characteristics of the system may imply that the impact of a project on emissions can be assessed irrespective of its location); and/or
- (b) The emissions intensity does not vary significantly across the sector (e.g. in the case of diesel power generation in off-grid electricity systems, the emission factor for electricity generation may be based on standard factors with a reasonable degree of accuracy).

15. The following options are applicable for the establishment of a baseline:

- (a) The use of a multi-project emissions factor
- (b) According to decision 10/CMP.1, paragraph 4 (a), project participants may apply methodologies for baselines and monitoring approved by the CDM Executive Board, including methodologies for small-scale project activities, as appropriate. If an approved CDM baseline and monitoring methodology is used, all explanations, descriptions and analyses shall be made in accordance with the selected methodology;
- (c) Alternatively, the project participants may establish a baseline that is in accordance with appendix B of the JI guidelines. In doing so, selected elements or combinations of approved CDM baseline and monitoring methodologies may be used, as appropriate;
- (d) Identification and listing of all plausible future scenarios on the basis of conservative assumptions and identifying the most plausible scenario.

16. A baseline shall be established 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. Key factors that affect a baseline, inter alia, over time shall be taken into account, e.g.:

- (a) Sectoral reform policies and legislative development;*
- (b) Economic situation/growth and socio-demographic factors in the relevant sector as well as resulting predicted demand. Suppressed and/or increasing demand that will be met by the project can be considered in the baseline as appropriate (e.g. by assuming that the same level of service as in the project scenario would be offered in the baseline scenario);*
- (c) Availability of capital (including investment barriers);*
- (d) Local availability of technologies, skills and know-how and availability of best available technologies in the future;*
- (e) Fuel prices and availability;*
- (f) National expansion plan for the energy sector.*

17. Furthermore, each baseline shall be established:

- (a) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, data sources and key factors;*
- (b) Taking account of uncertainties and using conservative assumptions; and*
- (c) In such a way that ERUs cannot be earned for decreases in activity levels outside the project activity or due to force majeure.*

18. The project participants shall justify their choice of baseline taking into account annex 1 to this document.

19. The project participant shall ensure that its choice of baseline is set in accordance with appendix B of the JI guidelines and any national guidelines set by Parties involved.

C. Guidance on Monitoring

- 1) Paragraph 22 seems to point project participants towards use of CDM monitoring methodologies. ECON suggests making minor changes to this paragraph as follows: In the first sentence delete the word “two” so the sentence reads “...in one of the following ways:” In addition, subparagraph (b) should come first as it is part of the JI guidelines and project participants must ensure that even the CDM methodologies are in accordance with the JI guidelines prior to their use. It should also be rewritten to state that “project

participants must establish a monitoring plan that is in accordance with Appendix B of the JI guidelines.” The new paragraph would be as follows:

22. *As part of the PDD of the project a monitoring plan has to be established in one of the following two ways:*

(a) Project participants may establish a monitoring plan that is in accordance with appendix B of the JI guidelines;

(b) According to decision 10/CMP.1, paragraph 4 (a), project participants may also apply methodologies for baselines and monitoring approved by the CDM Executive Board, including methodologies for small-scale project activities, as appropriate. If an approved CDM baseline and monitoring methodology is used, all explanations, descriptions and analyses shall be made in accordance with the selected methodology;

(c) Project participants establishing a monitoring plan under subparagraph (a) above may use selected elements or combinations of approved CDM monitoring methodologies if deemed appropriate.

2) Again using the CDM Meth Panel Draft Technical Paper as a basis for additional guidance, we suggest adding the following paragraphs on monitoring procedures. This would follow current paragraph 22:

Monitoring procedures

23. *The monitoring plan must provide sufficient detailed information related to the collection and archiving of all relevant data needed to:*

(a) Estimate or measure emissions occurring within the project boundary,

(b) Determine the baseline emissions, and

(c) Identify increased/decreased emissions outside the project boundary.

24. *The monitoring plan should reflect good monitoring practice appropriate to the type of project activity.*

25. *Explain how the monitoring plan should be implemented, the responsibilities of various parties, and the management and operational structure supporting monitoring by the project participant.*

26. *Ensure that the monitoring plan is consistent with national JI guidelines of the (host) Party involved in particular on monitoring and verification procedures.*

3) Under current paragraph 23, ECON recommends adding a subparagraph that would suggest providing the information required in a table format—see for instance CDM-

- NM Section III, 2 on data and parameters monitored. See also the CDM Meth Panel Draft Technical Paper Section IV, B on Data and parameters monitored.
- 4) We recommend examining the CDM Meth Panel Draft Technical Paper on Data and Parameters monitored in order to provide project participants with some additional guidance on developing appropriate monitoring plans—particularly in cases where a CDM methodology or some other established monitoring protocol is not being used. See Attachment 2.
 - 5) Under paragraph 28, the Working Paper seems to suggest that accredited laboratories or inspection bodies should be employed for monitoring—if deemed necessary. It is unclear whom is to determine when it is necessary or on what basis. ECON believes that the emphasis should be placed on describing the management and operational structure supporting monitoring and ensuring that monitoring is carried out in a consistent and appropriate manner. It will also be important to ensure that the monitoring plan is consistent with any national JI guidelines on monitoring and verification in accordance with the JI guidelines under the COP/MOP. If the paragraphs on monitoring procedures is including in the JI Supervisory Committee working paper, current paragraph 28 could be deleted.
 - 6) Paragraph 30 seems to provide guidance to the accredited IE rather than to the project participant. The JI Supervisory Committee might consider restructuring the paragraph to place emphasis on the responsibility of the project participants:

30. Project participants must ensure that the project is monitored in accordance with the monitoring plan.

31. In accordance with paragraph 36 of the JI guidelines, project participants must submit to an accredited independent entity a monitoring report on reductions in anthropogenic emissions by sources or enhancements of anthropogenic removals by sinks that have already occurred. This report will be made publicly available.

Attachment 1:

General guidance on project emissions, baseline emissions and leakage effects

1. *Elaborate all algorithms and formulae used to estimate, measure or calculate project emissions, baseline emissions and leakage effects. Be specific and complete, so that the procedure can be carried out in an unambiguous way, replicated, and subjected to verification:*
 - (a) *Explain the underlying rationale for algorithm/formulae (e.g. marginal vs. average, etc.).*
 - (b) *Use consistent variables, equation formats, subscripts, etc.*
 - (c) *Number all equations;*
 - (d) *Define all variables, with units indicated;*
 - (e) *Justify the conservativeness of the algorithms/procedures; to the extent possible, include methods to quantitatively account for uncertainty in key parameters;*
2. *Elaborate all parameters, coefficients, and variables used in the calculation of baseline emissions, project emissions and leakage effects:*
 - (a) *For those values that are provided in the methodology:*
 - (i) *Clearly indicate the precise references from which these values are taken (e.g. official statistics, IPCC Guidelines, commercial and scientific literature);*
 - (ii) *Justify the conservativeness of the values provided.*
 - (b) *For those values that are to be provided by the project participant, clearly indicate how the values are to be selected and justified, for example, by explaining:*
 - (i) *What types of sources are suitable (official statistics, expert judgment, proprietary data, IPCC, commercial and scientific literature, etc.);*
 - (ii) *The vintage of data that is suitable (relative to the project crediting period);*
 - (iii) *What spatial level of data is suitable (local, regional, national, international);*
 - (iv) *How conservativeness of the values is to be ensured.*
3. *For all data sources, specify the procedures to be followed if expected data are unavailable. For instance, the methodology could point to a preferred data source (e.g. national statistics for the past 5 years), and indicate a priority order for use of additional data (e.g. using longer time series) and/or fall back data sources to preferred sources (e.g. private, international statistics, etc.).*
4. *Use International System Units (SI units – refer to http://www.bipm.fr/enus/3_SI/si.html).*

5. *Note any parameters, coefficients, variables, etc. that are used to calculate baseline emissions but are obtained through monitoring. Ensure consistency between the baseline and monitoring plan.*
6. *If the calculation of the baseline emissions is to be performed ex post, include an illustrative ex ante emissions calculation.*
7. *Ensure consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions of the baseline.*
8. *Explain any parts of the algorithm or formulae that are not self-evident. Justify that the procedure is consistent with standard technical procedures in the relevant sector. Provide references as necessary. Explain implicit and explicit key assumptions in a transparent manner. State clearly which assumptions and procedures that have significant uncertainty associated with them, and how such uncertainty is to be addressed. Describe the uncertainty of key parameters and, where possible, provide an uncertainty range at 95% confidence level for key parameters for the calculation of emission reductions. Project participants are also encouraged to refer to chapter 6 of the IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories for more Guidance on analysis of uncertainty.*
9. *Elaborate the algorithms and formulae used to estimate, measure or calculate the net emission reduction from the CDM project activity. In most cases, this will be simple equation with three terms: the baseline emissions, the project emissions, and the net leakage.*
10. *Even if the calculation of the emission reductions is to be performed ex post, the procedure should include the calculation of an ex ante estimate.*
11. *Ensure that the description of emission reductions is consistent with the monitoring plan.*

10. According to Appendix B of the JI Guidelines, a baseline shall be established in a “transparent manner” and “using conservative assumptions”. This means that assumptions are explicitly explained and choices are substantiated. In case of uncertainty regarding values of variables and parameters, the establishment of a baseline is considered conservative if the resulting projection of the baseline does not lead to an overestimation of emission reductions attributable to the JI project (that is, in the case of doubt, values that generate a lower baseline projection shall be used).

Attachment 2:

Data and parameters monitored

- 1) The monitoring plan should provide a complete compilation of the data that needs to be collected for its application. This includes data that is measured or sampled and data that is collected from other sources (e.g. official statistics, expert judgment, proprietary data, IPCC, commercial and scientific literature, etc.). Data that is calculated with equations should not be included in the compilation.
- 2) Use the following table to provide information for each data/parameter:

Data / Parameter:	
Data unit:	
Description:	
Source of data:	
Measurement procedures (if any):	
Monitoring frequency:	
QA/QC procedures:	
Any comment:	

- (a) Under “data / parameter”, the variable used in equations in the baseline.
- (b) The International System Unit (SI units – refer to http://www.bipm.fr/enus/3_SI/si.html).
- (c) A clear and unambiguous description of the parameter;
- (d) A description which data sources should be used to determine this parameter. Clearly indicate how the values are to be selected and justified, for example, by explaining:
 - (i) What types of sources are suitable (official statistics, expert judgement, proprietary data, IPCC, commercial and scientific literature, etc.);
 - (ii) The vintage of data that is suitable (relative to the project crediting period);
 - (iii) What spatial level of data is suitable (local, regional, national, international);
 - (iv) How conservativeness of the values is to be ensured.
 - (v) The procedures to be followed if expected data are unavailable. For instance, the plan could point to a preferred data source (e.g. national statistics for the past 5 years), and indicate a priority order for use of additional data (e.g. using longer time series) and/or fall back data sources to preferred sources (e.g. private, international statistics, etc.).
- (e) A description of the measurement procedures or reference to appropriate standards;

- (f) A description of the frequency of monitoring (e.g. continuously, annually, etc);
- (g) A description of QA/AC procedures.

3) The following table provides an example for a simple parameter.

Data Parameter:	/ $EG_{PJ,y}$
Data unit:	MWh
Description:	Quantity of electricity generated by the project plant during the year y
Source of data:	On-site measurements and electricity sales receipts
Measurement procedures (if any):	On-site electricity meter
Monitoring frequency:	Continuously
QA/QC procedures:	Meter should be calibrated regularly according to manufacturer's guidelines. Measurement results should be cross-checked with the quantity of invoices from the grid operator.
Any comment:	