



Please note that this is only an extract of the full guidelines for completing the CDM-NMB and CDM-NMM, as it is the annex 4 of the twentieth meeting of the CDM Executive Board.

The revised full version of the guidelines can be found at the “Documents” section of the UNFCCC CDM web site at <http://cdm.unfccc.int/Reference/Documents>

PART III

A. Information note for Proposed New Methodology: Baseline (CDM-NMB) and Proposed New Methodology: Monitoring (CDM-NMM)

1. A strong link between baseline and monitoring methodologies is to be provided. New baseline and monitoring methodologies shall be proposed and approved together.
2. The forms “Proposed New Methodology: Baseline” (CDM-NMB) and “Proposed New Methodology: Monitoring” (CDM-NMM) are to be used to propose a new baseline methodology and/or new monitoring methodology respectively. These forms shall fully and completely describe the methodology. A CDM-PDD, which is to be attached, demonstrates the application of a proposed new methodology to a project activity.
3. The most recent versions of these forms may be obtained from the “forms” section of the UNFCCC CDM web site (<http://unfccc.int/cdm>) or from the UNFCCC secretariat by e-mail (cdm-info@unfccc.int) or in print via fax (+49-228-815-1999).
4. The forms “Proposed New Methodology: Baseline” (CDM-NMB) and “Proposed New Methodology: Monitoring” (CDM-NMM) shall be submitted together to the Executive Board in accordance with “Procedures for submission and consideration of a proposed new methodology”. For the most recent version of the procedures, please refer to procedures page of the UNFCCC CDM web site (<http://unfccc.int/cdm>). The forms should be accompanied by the CDM-PDD with sections A-E completed including relevant annexes, in order to demonstrate the application of the proposed new methodologies to a proposed project activity.
5. Each proposed new baseline and monitoring methodology should use a separate CDM-NMB form, CDM-NMM form and “CDM-Proposed New Methodology form” (CDM-PNM). The CDM-NMB forms and the CDM-NMM forms for several new methodologies may be submitted together with the same CDM-PDD for several components of a proposed project.



6. For additional guidance on aspects to be covered in the description of a new methodology, please refer to guidance and clarifications by the Executive Board on the “guidance – clarifications” section of the UNFCCC CDM web site and the “Glossary of CDM terms”.
7. Tables and their columns shall not be modified or deleted. Rows may be added, as needed.
8. The CDM-PDD, CDM-NMB and CDM-NMM shall include in section A the version number and the date of the document. If sections of the CDM-PDD, CDM-NMB and CDM-NMM are not applicable, it shall be explicitly stated that the section is left blank on purpose.

**B. Specific guidelines for completing the proposed new methodology: baseline (CDM-NMB)****1. The “methodology procedure” sections shall:**

- (a) Be completed in a fashion that can be readily used as an approved methodology. This requires use of appropriate format, tone, and level of specificity. Text shall be clear and succinct, well-written, and logically sequenced. It shall describe the procedures in a manner that is sufficiently explicit to enable the methodology to be carried out by a methodology user, applied to projects unambiguously, and reproduced by a third party. It shall be possible for projects following the methodology to be subjected to a validation and/or verification study. Methodology developers should review and be familiar with methodologies approved by the CDM Executive Board (please refer to the section on methodologies in the UNFCCC CDM web site).
- (b) Be generally appropriate for the entire group of project activities that satisfy the specified applicability conditions. A new methodology should therefore stand independently from the specific project activity proposed in the draft CDM-PDD with which the new methodology is being submitted. The methodology should not make direct reference to, or depend on characteristics of, the specific project activity being proposed in the draft CDM-PDD. It should not refer to specific project activities or locations, project-specific conditions or project-specific parameters. This project-specific information should be described in the draft CDM-PDD, however, it can be referred to in the explanation/justification section to help describe the methodology.
- (c) Present methodology steps as one might present a recipe. In doing so, clearly state what the methodology user must do and what information must be presented in the resulting CDM-PDD. It should include all algorithms, formulae, and step-by-step procedures needed to apply the methodology and validate the project activity, i.e. calculating baseline, project, and leakage emissions. The completed form shall provide stand-alone replicable methodologies, and avoid reference to any secondary documents other than EB-approved tools and methodologies.
- (d) Indicate precisely what information the project proponent must report in the draft CDM-PDD and/or in monitoring reports.
- (e) Support important procedures and concepts with equations and diagrams. Non-essential information should be avoided.
- (f) Refer by name and reference number to approved methodologies and tools if they are used – in whole or in part – in this methodology. Relevant sections can be cited specifically, but do not need to be repeated. Any proposed modifications and/or additions to approved tools and methodologies need to be clearly highlighted.
- (g) Specify, for all formulae/algorithms:
 - i. The type of variables used (e.g. fuel(s) used, fuel consumption rates, etc.);



- ii. The spatial level of data (local, regional, national, etc.);
 - iii. The vintage of data (relative to project crediting period).
- (h) Use common formats for equations and terms and international system units (SI units).
 - (i) Clearly specify all quantitative assumptions and data requirements needed by the methodology. Indicate sources of data and assumptions, as well as 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.).
 - (j) Provide instructions for making any logical or quantitative assumptions that are not provided in the methodology and must be made by the methodology user.
 - (k) Include instructions to assist in implementing the methodology in a conservative manner where logical or quantitative assumptions have to be made by the methodology user, particularly in cases of uncertainty.

2. The “explanation and justification” sections shall:

- (a) Be used to assist the assessment by the Meth Panel and the Executive Board in reviewing the methodology. If the proposed methodology is approved these sections are removed from the final version.
- (b) Provide the rationale for the procedures presented.
- (c) If the procedure draws from an approved Methodology or tool, clearly note any changes to them or elaborations of them. Justify why such changes have been made.
- (d) Point out the key logical and quantitative assumptions, i.e., those assumptions that the results of the baseline methodology are particularly sensitive to.
- (e) Be clear about sources of uncertainty. Clearly point out which logical or quantitative assumptions have significant uncertainty associated with determining them. If the methodology makes a certain assumption in cases where there is uncertainty, explain why this assumption is appropriate.
- (f) Explain how the methodology ensures conservativeness. Explain how the procedures and assumptions on which the procedures rely are conservative. In particular, explain how assumptions in the case of uncertainty are conservative.



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**SECTION A. Methodology title and summary description**

(This section corresponds to the former sections A.1. *Proposed methodology title* and B. *Overall summary description of CDM-NMB form version 01*)

Methodology title:

Provide an unambiguous title for a proposed methodology. The title should reflect the project types to which the methodology is applicable. Do not use project-specific titles.

Please indicate the following:

- *The title of the proposed methodology*
- *The version number of the document*
- *The date of the document*

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Summary description:

Summarize the key elements of the proposed new methodology, per the sections below.

Include brief statements on each on how the proposed methodology:

- i. *chooses the baseline scenario,*
- ii. *demonstrates additionality,*
- iii. *calculates baseline emissions,*
- iv. *calculates project emissions,*
- v. *calculates leakage, and*
- vi. *calculates emission reductions.*

In doing so, if relevant, note how this methodology builds on, complements, and/or provides an alternative to approved methodologies.

Please do not exceed one page. The detailed explanation of the methodology is to be provided in sections below.

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If this methodology is based on a previous submission, please state the previous reference number (NMXXXX/AMXXXX) here:

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SECTION B. Applicability/ project activity

(This section corresponds to the former sections A.2 *List of category(ies) of project activity to which the methodology may apply* and A.3. *Conditions under which the methodology is applicable to CDM project activities of CDM-NMB form version 01*)

Methodology procedure:

List category(ies) of project activity to which the methodology may apply. Use the list of categories of project activities and of registered CDM project activities by category available on the UNFCCC CDM web site. If no suitable category(ies) of project activities can be identified, please suggest a new category(ies) descriptor and its definition, being guided by relevant information on the UNFCCC CDM web site.



List any conditions which a proposed CDM project activity must satisfy in order for the methodology to be applicable: (e.g. project technology, sectoral circumstances, region). Conditions should not substitute for steps that are necessary parts of the baseline methodology, such as defining the baseline, which must be derived through step-by-step application of the methodology procedures. Applicability conditions must pertain to the type of proposed project activity and sector in which it takes place. They should not be conditions on a presumed baseline scenario (e.g., it is not appropriate for an applicability condition to be “The plant would continue to use the same fuel at the same efficiency without the project activity” as this is not a condition on the project activity, but a result of baseline assessment.).

In some cases, compliance with an applicability condition, such as “the project activity is a grid-connected wind power facility”, is obvious, easily validated, and unlikely to change. In other cases however, compliance with an applicability condition may need to be monitored during the crediting period, and the consequences of non-compliance would need to be indicated in the methodology. For example, if an applicability conditions is “The project should not result in the storage of biomass for more than thirty days” , the methodology should explain how the applicability condition can be satisfied (e.g. through monitoring of storage facilities, if present), and how it will be reported.

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Explanation/justification:
 Explain the choice of the project category and applicability conditions.
 Indicate if an approved methodology exists for the same conditions of application.

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SECTION C. Project Boundary

(This section corresponds to the former section D.5. *Project boundary (gases and sources included, physical delineation)* of CDM-NMB form version 01)

Methodology procedure:
 Describe the project boundary.
 Provide the physical delineation. Use a figure or flowchart if it would be helpful.
 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. If possible use the table provided below.

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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 | | |

Explanation/justification:

Justify the project boundary, 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.

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SECTION D. Baseline Scenario¹

(This section corresponds to the former sections D.1. Explanation of how the methodology determines the baseline scenario, D.2 Criteria used in developing the proposed baseline methodology and D. 4 How national and/or sectoral policies and circumstances can be taken into account by the methodology of CDM-NMB form version 01)

Methodology procedure:

Provide a systematic, step-by-step procedure for determining the most likely baseline scenario. This procedure should describe a process for identifying the options to be considered as plausible candidate baseline scenarios. It should clearly explain the logical and analytical steps that must be followed in ascertaining the most likely baseline scenario from among these candidates. It should clearly state what the methodology user must do and what information must be presented in the resulting CDM-PDD in order to make a logical and well-substantiated case for the baseline scenario. Be specific and complete, so that the procedure can be carried out in an unambiguous way, replicated, and subjected to a validation study.

Ensure consistency between baseline scenario derived by this methodology and the procedure and formulae used to calculate the baseline emissions (below). The baseline scenario determination procedure should indicate for which baseline scenarios the overall methodology is applicable. This situation would occur when baseline emissions section (below) does not include algorithms and/or parameters relevant to this scenario.

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¹ The baseline for a CDM project activity is the scenario that reasonably represents the anthropogenic emissions by sources of greenhouse gases that would occur in the absence of the proposed project activity. A baseline shall cover emissions from all gases, sectors and source categories listed in Annex A of the Kyoto Protocol within the project boundary. The general characteristics of a baseline are contained in paragraphs 45 to 47 of the CDM modalities and procedures.

**Explanation/justification:**

Explain why the proposed procedure for determining the baseline scenario is appropriate for the project type and applicability conditions.

Justify that the range of options to be considered as plausible baseline scenarios is sufficiently comprehensive. The options to be considered should not exclude plausible options that, if included, might result in the determination of a different baseline scenario.

Highlight the key logical assumptions and quantitative factors underlying the procedure for determining the baseline scenario. State clearly which assumptions and factors have significant uncertainty associated with them, and how such uncertainty is to be addressed.

Explain how national and/or sectoral policies and circumstances, if and as relevant, are taken into account by the methodology.

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SECTION E. Additionality

*(This section corresponds to the former sections D.3. *Explanation of how, through the methodology, it can be demonstrated that a project activity is additional and therefore not the baseline scenario* (section B.3 of the CDM-PDD) and D.4 *How national and/or sectoral policies and circumstances are taken into account by the methodology of CDM-NMB form version 01.*)*

Methodology procedure:

Provide a systematic step-by-step procedure for determining whether or not the project activity is, or is part of, the baseline scenario, and thereby determining whether the project activity is additional. The methodology should clearly state what the methodology user must do and what information must be presented in the resulting CDM-PDD in order to make a logical and well-substantiated case for the project's additionality.

Ensure consistency between baseline scenario derived by this methodology and the procedure and formulae used to demonstrate additionality. Note, for many methodologies there will be a strong link between the baseline scenario and additionality sections. Present the procedures in each step in as much detail as needed, but avoid repetition that is not needed for reasons of clarity.

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Explanation/justification:

Justify why the proposed procedure is an appropriate procedure for establishing the project's additionality.

Highlight the key logical assumptions and quantitative factors underlying the procedure for demonstrating the project activity is additional. State clearly which assumptions and factors have significant uncertainty associated with them, and how such uncertainty is to be addressed.

If relevant, explain how national and/or sectoral policies and circumstances are taken into account by the methodology.

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**SECTION F. Baseline emissions**

(This section corresponds to the former sections D. 6. *Elaborate and justify formulae/algorithms used to determine the baseline scenario. Variables, fixed parameters and values have to be reported (e.g. fuel(s) used, fuel consumption rates)* E. *Data sources and assumptions* and F. *assessment of uncertainties (sensitivity to key factors and assumptions) of CDM-NMB form version 01*)

Methodology procedure:

Elaborate the all algorithms and formulae used to estimate, measure or calculate the emissions from the baseline scenario. Be specific and complete, so that the procedure can be carried out in an unambiguous way, replicated, and subjected to a validation and/or verification study:

- *Use consistent variables, equation formats, subscripts, etc.*
- *Number all equations;*
- *Define all variables, with units indicated;*
- *Justify the conservativeness of the algorithms/procedures; to the extent possible, include methods to quantitatively account for uncertainty in key parameters.*

Several parameters, coefficients, variables, etc. may be used in the baseline emissions calculation.

a) For those whose values are provided in the methodology:

- *Clearly indicate the precise references from which these values are taken (e.g. official statistics, IPCC Guidelines, commercial and scientific literature);*
- *Justify the conservativeness of the values provided.*

b) For those whose values are to be provided by the project participant, clearly indicate how the values are to be selected and justified, for example, by explaining:

- *What types of sources are suitable;*
- *The vintage of data that is suitable;*
- *What spatial level of data is suitable (local, regional, national, international);*
- *How conservativeness of the values is to be ensured.*

Any parameters, coefficients, variables, etc. that are to be obtained through monitoring should be noted. The project participants shall ensure consistency between the baseline methodology and the monitoring methodology.

If the calculation of the baseline emissions is to be performed ex post, the procedure should include an illustrative ex ante emissions calculation.

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Explanation/justification:

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.

The project participants shall ensure consistency between the elaboration of the baseline scenario (section D) and the procedure for calculating the emissions of the baseline (this section).

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. Methodology developers 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.

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SECTION G. Project activity emissions

(This section corresponds to the former sections D.7. Elaborate and justify formulae/algorithms used to determine the emissions from the project activity. Variables, fixed parameters and values have to be reported (e.g. fuel(s) used, fuel consumption rates), E. Data sources and assumptions and F. assessment of uncertainties (sensitivity to key factors and assumptions) of CDM-NMB form version 01)

Methodology procedure:

Elaborate the all algorithms and formulae used to estimate, measure or calculate the emissions from the project activity. Be specific and complete, so that the procedure can be carried out in an unambiguous way, replicated, and subjected to a validation and/or verification study:

- Use consistent variables, equation formats, subscripts, etc.;
- Number all equations;
- Define all variables, with units indicated;
- Justify the conservativeness of the algorithms/procedures; to the extent possible, include methods to quantitatively account for uncertainty in key parameters.

Several parameters, coefficients, variables, etc. may be used in the project emissions calculation.

a) For those whose values are provided in the methodology:

- Clearly indicate the precise references from which these values are taken (e.g. official statistics, IPCC Guidelines, commercial and scientific literature);
- Justify the conservativeness of the values provided.

b) For those whose values are to be provided by the project participant, clearly indicate how the values are to be selected and justified, for example, by explaining:

- What types of sources are suitable;
- The vintage of data that is suitable;
- What spatial level of data is suitable (local, regional, national, international);
- How conservativeness of the values is to be ensured.

Any parameters, coefficients, variables, etc. that are to be obtained through monitoring should be noted. The project participants shall ensure consistency between the baseline methodology and the monitoring methodology.

The procedure should include an illustrative ex ante project emissions calculation.

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Explanation/justification:

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.

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. Methodology developers 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.

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SECTION H. Leakage

(This section corresponds to the former sections D.8. *Description of how the baseline methodology addresses any potential leakage of the project activity*, E. *Data sources and assumptions* and F. *assessment of uncertainties (sensitivity to key factors and assumptions)* of CDM-NMB form version 01)

Methodology procedure:

Leakage is defined as the net change of emissions occurring outside the project boundary that is attributable to the implementation of the CDM project activity.

Identify the sources of leakage. Explain which sources of leakage are to be calculated, and which can be neglected.

Elaborate the all algorithms and formulae used to estimate, measure or calculate the emissions from leakage. Be specific and complete, so that the procedure can be carried out in an unambiguous way, replicated, and subjected to a validation and/or verification study:

- Use consistent variables, equation formats, subscripts, etc.;
- Number all equations;
- Define all variables, with units indicated;
- Justify the conservativeness of the algorithms/procedures; to the extent possible, include methods to quantitatively account for uncertainty in key parameters.

Several parameters, coefficients, variables, etc. may be used in the leakage emissions calculation.

a) For those whose values are provided in the methodology:

- Clearly indicate the precise references from which these values are taken (e.g. official statistics, IPCC Guidelines, commercial and scientific literature);
- Justify the conservativeness of the values provided.

b) For those whose values are to be provided by the project participant, clearly indicate how the values are to be selected and justified, for example, by explaining:

- What types of sources are suitable;
- The vintage of data that is suitable;
- What spatial level of data is suitable (local, regional, national, international);
- How conservativeness of the values is to be ensured.

Any parameters, coefficients, variables, etc. that are to be obtained through monitoring should be noted. The project participants shall ensure consistency between the baseline methodology and the monitoring methodology.

*Even if the calculation of the leakage is to be performed *ex post*, the procedure should include the calculation of an *ex ante* estimate.*



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Explanation/justification:

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.

Justify the selection of sources of leakage that must be calculated as opposed to neglected.

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. Methodology developers 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.

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SECTION I. Emission reductions

(This section corresponds to the former section D.9 Elaborate and justify formulae/algorithms used to determine the emissions reductions from the project activity. Variables, fixed parameters and values have to be reported (e.g. fuel(s) used, fuel consumption rates) of CDM-NMB form version 01)

Methodology procedure:

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 result of section G), the project emissions (the result of section H), and the net leakage (the result of section I).

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.

Ensure that the description of emission reductions is consistent with the proposed new monitoring methodology.

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Explanation/justification:

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SECTION J. Optional: Changes required for methodology implementation in 2nd and 3rd crediting periods (if relevant)**Methodology procedure:**

Specify any further procedures needed to update the baseline in future crediting periods.

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Explanation/justification:

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**SECTION K. Selected baseline approach from paragraph 48 of the CDM modalities and procedures**

(This section corresponds to the former section C.1. *General baseline approach of CDM-NMB form version 01*)

Choose One (delete others):

- Existing actual or historical emissions, as applicable;
- Emissions from a technology that represents an economically attractive course of action, taking into account barriers to investment;
- The average emissions of similar project activities undertaken in the previous five years, in similar social, economic, environmental and technological circumstances, and whose performance is among the top 20 per cent of their category.

Explanation/justification of Choice:

The choice of the baseline approach should be based, if possible, on the procedure described in the baseline emissions section above.

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SECTION I. Other Information

(This section corresponds to the former sections A.4. *What are the potential strengths and weaknesses of this proposed new methodology* and G (*Explanation of how the baseline methodology allows for the development of baselines in a transparent and conservative manner*) of CDM-NMB form version 01)

Explanation/justification:

Explanation of how the baseline methodology allows for the development of baselines in a transparent and conservative manner.

What are the potential strengths and weaknesses of this proposed new methodology?

Provide any other information here.

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