#### **UNFCCC/CCNUCC**



CDM - Executive Board



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## Annex 13

# POLICY OPTIONS TO ASSESS GRID EMISSION FACTORS PUBLISHED BY DESIGNATED NATIONAL AUTHORITIES

# I. Background

- 1. The "Tool to calculate the emission factor for an electricity system" provides detailed requirements for the calculation of grid emission factors to be used by CDM project activities which displace electricity from the grid or use electricity from a grid. Many designated national authorities (DNAs) have chosen to calculate and publish their own country grid emission factors. Due to the confidential and/or proprietary data used in these calculations it may not been possible for a DOE to validate that such calculation is in compliance with the requirements of the Tool mentioned above.
- 2. The Executive Board at its forty-ninth meeting requested the secretariat to prepare an information note containing options for ensuring that grid emission factor published by DNAs comply with the requirements of the "Tool to calculate the emission factor for an electricity system" for consideration at a future meeting

## II. Scope

3. This document proposes three policy options to the Board in order to assess grid emission factors published by DNAs, which aim to streamline the registration process by reducing the request for reviews related to this issue, to increase the level of transparency and accuracy of the registration process and to assist Least Developed Countries (LDC) overcoming their difficulties to estimate their grid emission factor.

# III. Option 1 – Assessment of the estimated grid emission factor

- 4. This approach would involve a six-step approach to assess the estimation of the grid emission factor published by DNAs, as follows:
- (a) The DNA shall submit to the secretariat the grid emission factor estimation for approval via an application form;
- (b) The estimated grid emission factor shall be assessed by an assessment team, appointed by the Board. The assessment team shall consist of at least two persons, who could be from the Meth Panel, RIT members, and/or a secretariat staff member;
- (c) The DNA shall make all the necessary information accessible to the assessment team and respond to any request for clarification. The information shall be handled under a confidentiality agreement. The assessment team shall finalize the assessment report of the calculation of the grid emission factor and recommend the Board to approve, request corrections or reject such estimation;
  - (d) The Board shall decide on the final recommendation given by the assessment team;
- (e) In case the grid emission factor is approved by the Board, this shall be published on the UNFCCC CDM website.
- 5. The above approach will allow the Board to ensure that the grid emission factor is estimated based on data that is conservative, correctly gathered and handled in a proper way. It will also allow the Board to ensure that the estimation conducted is entirely in line with the "*Tool to calculate the emission factor for an electricity system*". In order to implement this approach the DNAs shall support the procedure by providing access to the data.

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## IV. Option 2 – Assessment of the procedure used to estimate the grid emission factor

- 6. This approach would involve a six-step approach to assess the estimation of the grid emission factor published by DNAs, as follows:
  - (a) The DNA shall submit to the secretariat a request for approval of the grid emission factor procedure via an application form;
  - (b) This form shall require the details on the process implemented to estimate the grid emission factor, the steps taken to process the information/data gathered, the characteristic of the grid, the methodological choices applied, and whether or not the calculation method involves any deviation from the requirements of the Tool.
  - (c) The procedure used to estimate the grid emission factor shall be assessed by an assessment team, which is previously appointed by the Board. The assessment team shall consist of at least two persons, who could be from the Meth Panel, RIT members, and at least one of the secretariat staff members.
  - (d) The DNA shall respond to any request for clarification raised by the assessment team.
  - (e) The assessment team shall finalize the assessment report of the estimation of the grid emission factor and recommend the Board to approve, request corrections or reject the process implemented to estimate such factor.
  - (f) The Board shall decide on the final recommendation given by the assessment team.
  - (g) In case the process to estimate the grid emission factor is approved by the Board, the value of the grid emission factor shall be published on the UNFCCC website.
- 7. The above approach will allow the Board to ensure that the process implemented by the DNAs to estimate their grid emission factor complies with the requirement of the "Tool to calculate the emission factor for an electricity system". However, the approach would not allow to ensure that conservative, transparent and accurate data is used for the estimation of the grid factor.

# V. Option 3 – Approval of the grid emission factor given by DNAs

8. Under option 3, the grid emission factor published by DNAs is accepted by default. Project participants can therefore use the data published by their own DNAs to calculate their own emission factors (e.g.: combined margin value) or directly use the value published by the DNA in their emission reduction calculations. This approach supports CDM implementation and avoids issues to be raised on the compliance of the calculation of such factors with the requirements of the tool. However, it does not ensure that the most appropriate data was used to estimate these factors. Hence, the grid emission factor estimation is subject to uncertainty on the level of conservativeness, transparency and accuracy.

## VI. Comparison between options

9. Three main criteria have been selected to compare the options presented for the assessment of the grid emission factor published by DNAs. These criteria are transparency, conservativeness and consistency, which are based on the CMP decision for baseline and monitoring methodologies (FCCC/KP/CMP/2005/8/add.1 pages 25, 26). The following table summarises the three options against main criteria.



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Options	Criteria		
	Transparency	Conservativeness	Consistency
1- assessing the estimated grid emission factor	YES	YES	YES
2- assessing procedure to estimate the grid emission factor	NO	UNKNOWN	UNKNOWN
3- acceptance of DNA factors	NO	UNKNOWN	UNKNOWN

## VII. System to assist LDC

- 10. In order to support and facilitate the participation of Least Developed Countries (LDC) in the CDM market, the secretariat recommends the Board to follow up a simplified approach to estimate the grid emission factor of such countries.
- 11. This approach shall consist of a simplified "*Tool to calculate the emission factor for an electricity system*" to be developed by the Meth Panel and a specific procedure for gathering data and calculating the grid emission factor.
- 12. The Meth Panel shall develop a simplified tool considering the LDC possibilities and limitation for gathering specific data and information, and the country's characteristics, specifically the grid country distribution, the size, the main sources of fuels used for electricity generation, the capacity size and the annual generating capacity (electricity output), etc.
- 13. LDC may be able to request special support from the secretariat to implement an adequate system for gathering the data/information required by the simplified tool such as a simple mathematical model.
- 14. Once the grid emission factor is estimated, it will be approved by the Board following the conventional steps of approval.
- 15. In case the grid emission factor is approved by the Board, this value shall be published on the UNFCCC website by the secretariat in order to make it available to all project developers in the host country and worldwide.

## VIII. Recommendations for future work

16. While this annex offers an initial step to create an approach to facilitate the implementation of CDM project activities by streamlining the process of assessing grid emission factors published by national authorities, the secretariat recommends to the Board to consider the options presented against the criteria and to decide on an approach that will ensure that the grid emission factor is calculated in an accurate, conservative and transparent manner in line with the requirements of the tool. The secretariat also recommends the Board to consider the approach for helping LDC considering the difficulties that they face in order to implement a procedure for acquiring, processing and handling data and the availability of such data.

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