

**CDM-EB70-AA-A13**

## Draft Standardized baseline

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# Grid emission factor for the Southern African power pool

Version 01.0

DRAFT



**United Nations**  
Framework Convention on  
Climate Change

## COVER NOTE

### 1. Procedural background

1. At the sixth session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP 6) in Cancun, Parties agreed to decision 3/CMP.6 on the implementation of standardized baselines under the clean development mechanism (CDM).<sup>1</sup>
2. The CMP 6 decided that Parties, project participants, as well as international industry organizations or admitted observer organizations through the host country's designated national authority, may submit proposals for standardized baselines applicable to new or existing methodologies, for consideration by the CDM Executive Board (hereinafter referred to as the Board).
3. CMP 6 also requested the Board to develop standardized baselines, as appropriate, in consultation with relevant designated national authorities (DNAs), prioritizing methodologies that are applicable to least developed countries (LDCs), small island developing States (SIDS), Parties with 10 or fewer registered CDM project activities as of 31 December 2010 and underrepresented project activity types or regions, inter alia, for energy generation in isolated systems, transport and agriculture.
4. According to the "Procedure for the submission and consideration of the standardized baselines" the following steps were undertaken:
  - (a) The submission of the proposed standardized baseline "Grid Emission Factor for the Southern African Power Pool" was assessed by the secretariat;
  - (b) Draft recommendation was prepared;
  - (c) The two selected members of the Methodology Panel agreed with the draft recommendation;
  - (d) The DNA provided further input requested by the recommendation;
  - (e) Further input provided by the DNA was assessed by the secretariat and it was found sufficient to recommend the proposed standardized baseline for approval.

### 2. Purpose

5. This standardized baseline provides the values of the CO<sub>2</sub> emission factors for the interconnected electricity system of the SAPP and it is applicable to the group of countries, that are members of the SAPP. These countries are:
  - (a) The Republic of Botswana;
  - (b) The Democratic Republic of the Congo (DRC);

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<sup>1</sup> <<http://unfccc.int/resource/docs/2010/cmp6/eng/12a02.pdf#page=2>>.

- (c) The Kingdom of Lesotho;
- (d) The Republic of Mozambique;
- (e) The Republic of Namibia;
- (f) The Republic of South Africa;
- (g) The Kingdom of Swaziland;
- (h) The Republic of Zambia;
- (i) Zimbabwe.

### **3. Key issues and proposed solutions**

6. The proposed standardized baseline was developed using the methodological tool “Tool to calculate the emission factor for an electricity system”. The tool provides two options with regard to data vintage and validity of the emission factor:
  - (a) Ex ante option, where the emission factor is determined once at the validation stage, thus no monitoring and recalculation of the emissions factor during the crediting period is required;
  - (b) Ex post option, where, the emission factor is to be updated annually.
7. However, the standardized baseline should be updated every three years according to the “Guidelines for the establishment of the sector specific standardized baselines”.
8. The secretariat recommends that the Board adopts the value of three years as the frequency of update for this standardised baseline, extending the benefit of default frequency of update to this standardised baseline.

### **4. Impacts**

9. The use of the proposed standardized baselines can facilitate access to the CDM in the underrepresented countries-members of SAPP, as only one value of grid emission factor can be used by CDM projects implemented in all the countries, while ensuring environmental integrity.
10. The application of standardised baseline may result in increase in emission reduction for the CDM projects in the SAPP member-countries where the country-specific grid emission factor is lower than that provided by this standardised baseline. On the other had the application of the standardised baseline can reduce the emission reduction for the projects in the SAPP member-countries where the country-specific grid emission factor is higher than that provided by this standardised baseline.

### **5. Recommendations to the Board**

11. The secretariat recommends that the Board adopt the standardised baseline, taking into account its validity for three years.

## **6. References**

The documents of submission of Standardised Baselines from SAPP are available on following link: [http://cdm.unfccc.int/methodologies/standard\\_base/index.html](http://cdm.unfccc.int/methodologies/standard_base/index.html).

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## **1. Introduction**

1. This standardized baseline provides the values of the CO<sub>2</sub> emission factors for the interconnected electricity system of the Southern African Power Pool (SAPP) and it is applicable to the group of countries-members of the SAPP

## **2. Scope, applicability, and entry into force**

### **2.1. Scope**

2. This standardized baseline is based on the following proposed new standardized baseline:
  - (a) PSB0003 “Grid Emission Factor for the Southern African Power Pool” submitted by the DNA of the Republic of Botswana.
3. This standardized baseline also refers to the latest approved version of the following tool:
  - (a) “Tool to calculate the emission factor for an electricity system”.
4. For more information regarding the proposed new standardized baseline as well as their consideration by the CDM Executive Board please refer to <[http://cdm.unfccc.int/methodologies/standard\\_base/index.html](http://cdm.unfccc.int/methodologies/standard_base/index.html)>.
5. This standardized baseline provides the values of the baseline CO<sub>2</sub> emission factors for the project electricity system. The CO<sub>2</sub> emission factors are:
  - (a) Combined margin emission factor;
  - (b) Operating margin emission factor;
  - (c) Build margin emission factor.

### **2.2. Applicability**

6. This standardized baseline is applicable to the CDM projects in the following countries, which are the members of SAPP.:
  - (a) The Republic of Botswana;
  - (b) The Democratic Republic of the Congo (DRC);
  - (c) The Kingdom of Lesotho;
  - (d) The Republic of Mozambique;
  - (e) The Republic of Namibia;
  - (f) The Republic of South Africa;
  - (g) The Kingdom of Swaziland;
  - (h) The Republic of Zambia;

- (i) Zimbabwe.
7. The CDM project activities can apply this standardized baseline under the following conditions:
- (a) The project activity is connected to the project electricity system;
  - (b) The CDM approved methodology that is applied to the project activities, requires to determine CO<sub>2</sub> emission factor(s) for the project electricity system through the application of the “Tool to calculate the emission factor for an electricity system” , for the determination of baseline emissions, project emissions and leakage emissions;
  - (c) The latest approved values of the standardized baseline provided can be used for the first crediting period. At the renewal of the crediting period the latest available values should be applied;
  - (d) In case project electricity system is connected to another electricity system, the latest approved values of the CO<sub>2</sub> emission factor(s) remain valid for one calendar year after the new interconnection become operational.
8. The latest approved and valid values of this standardized baseline are the only values of the CO<sub>2</sub> emission factor(s) for the electricity system that can be used in the countries listed in the applicability section.

### **2.3. Entry into force**

9. Immediately upon adoption of the standardised baseline at the seventieth meeting of the Board (23 November 2012).

## **3. Definitions**

10. The definitions contained in the Glossary of CDM terms shall apply.
11. For the purpose of this standardized baseline, the following definition applies:
- (a) A project electricity system - the spatial extent of the power plants that are physically connected through transmission and distribution lines to supply electricity to the interconnected electricity system of the Southern African Power Pool (SAPP);
  - (b) Interconnection - the connection of two grids through the installation of one or many transmission lines.

## **4. Parameters, values**

12. This standardized baseline provides values for the following parameters:

**Table 1. Grid Emission Factors**

<b>Parameter</b>	<b>SI Unit</b>	<b>Description</b>	<b>Value</b>
<b>EF<sub>grid,CM,y</sub></b>	tCO <sub>2</sub> /MWh	Combined margin CO <sub>2</sub> emission factor for the project electricity system applicable to the wind and solar power generation for the first crediting period and for subsequent crediting periods	0.9801
<b>EF<sub>grid,CM,y</sub></b>	tCO <sub>2</sub> /MWh	Combined margin CO <sub>2</sub> emission factor for the project electricity system applicable to all project activities other than wind and solar for the first crediting period	0.9644
<b>EF<sub>grid,CM,y</sub></b>	tCO <sub>2</sub> /MWh	Combined margin CO <sub>2</sub> emission factor for the project electricity system applicable to all project activities other than wind and solar for the second and third crediting period	0.9488
<b>EF<sub>grid,BM,y</sub></b>	tCO <sub>2</sub> /MWh	Build margin CO <sub>2</sub> emission factor for the project electricity system	0.9331
<b>EF<sub>grid,OM,y</sub></b>	tCO <sub>2</sub> /MWh	Operating margin CO <sub>2</sub> emission factor for the project electricity system	0.9958

## 5. Validity

13. The values are valid for [one] [three] years from the date of adoption of standardized baseline by the CDM Executive Board.
14. The latest approved version of the “Tool to calculate the emission factor for an electricity system” shall be used to update the standardised baseline.

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### Document information

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