

ASB0001

Standardized baseline

Grid emission factor for the Southern African power pool

Version 01.0



United Nations
Framework Convention on
Climate Change

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1. Introduction

1. This standardized baseline provides the values of the CO₂ emission factors for the interconnected electricity system of the Southern African Power Pool (SAPP) and it is applicable to the group of countries of the SAPP (hereinafter referred to as the SAPP member countries).

2. Definitions

2. The definitions contained in the latest version of the “Tool to calculate the emission factor for an electricity system” shall apply.
3. For the purpose of this standardized baseline, the following definitions apply:
 - (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 SAPP;
 - (b) Interconnection - the connection of two grids through the installation of one or many transmission lines.

3. Scope, applicability, entry into force and validity

3.1. Scope

4. This standardized baseline is based on the proposed new standardized baseline PSB0003 “Grid Emission Factor for the Southern African Power Pool” submitted by the DNA of the Republic of Botswana.
5. This standardized baseline is derived from the version 2.2.1 of the following methodological tool “Tool to calculate the emission factor for an electricity system” (hereinafter referred to as the “tool”).
6. 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.
7. This standardized baseline provides the values of the baseline CO₂ emission factors for the project electricity system for the determination of baseline emissions, project emissions and leakage emissions. The CO₂ emission factors are:
 - (a) Combined margin emission factor;
 - (b) Operating margin emission factor;
 - (c) Build margin emission factor.

3.2. Applicability

8. This standardized baseline is applicable to the CDM projects in the following countries, which are the SAPP member countries:
 - (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.
9. 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 CO₂ emission factor(s) for the project electricity system through the application of the tool, for the determination of baseline emissions, project emissions and leakage emissions; and
 - (c) When applying the values of this standardized baseline to CDM projects, the requirements below are to be followed:
 - (i) In the case that the project activity uses the ex ante option of data vintage, as per the tool, the latest approved values of this standardized baseline shall be used for calculation of emission reduction for the entire first, or entire second or entire third crediting period;
 - (ii) In the case that the project activity uses the ex post option of data vintage as per the tool, the latest approved values of this standardized baseline valid at the end of the monitoring period shall be used for calculation of emission reduction for that monitoring period.
10. The latest approved and valid values of this standardized baseline are the only values of the CO₂ emission factor(s) that shall be applied for the project electricity system in the SAPP member countries listed in this section.

3.3. Entry into force

11. Immediately upon adoption of the standardized baseline by the CDM Executive Board (31/05/2013).

3.4. Validity of this standardized baseline

12. The values are valid for three years from the date of adoption of standardized baseline by the CDM Executive Board, provided that no legal restrictions for international electricity exchange between any of the SAPP member countries take effect after the adoption of this standardized baseline.
13. Where the project electricity system is connected to another electricity system, outside of the SAPP member countries, during the validity period of this standardized baseline the below values of the CO₂ emission factor(s) shall remain valid no more than one calendar year after that new interconnection becomes operational.
14. The latest approved version of the tool shall be used to update the standardized baseline.

4. Parameters and values

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

Table 1. Grid Emission Factors

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

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