

ASB0040-2018

Standardized baseline

Grid emission factor for Southern African Power Pool

Version 01.0



United Nations
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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).

2. Scope, applicability, and entry into force

2.1. Scope and applicability

2. The scope of this standardized baseline covers the grid emission factor for SAPP. It was derived using the ex-ante data vintage option of the “Tool to calculate the emission factor for an electricity system”, version 5.0 (hereinafter referred to as “the grid tool”) based on 2013 – 2015 data vintage.
3. Clean development mechanism (CDM) project activities and programmes of activities (hereinafter referred as project activities) can apply this standardized baseline under the following conditions:
 - (a) The project activity is implemented in any one of following countries, which are the SAPP member countries, and is connected to the SAPP;
 - (i) Republic of Botswana;
 - (ii) Democratic Republic of Congo;
 - (iii) Kingdom of Lesotho;
 - (iv) Republic of Mozambique;
 - (v) Republic of Namibia;
 - (vi) Republic of South Africa;
 - (vii) Kingdom of Swaziland;
 - (viii) Republic of Zambia, and
 - (ix) Republic of Zimbabwe.
 - (b) The CDM approved methodology that is applied to the project activity requires the determination of CO₂ emission factor(s) through the application of the grid tool;
 - (c) The project activity uses the ex-ante options for both the operating margin and build margin grid emissions factors, as described in the grid tool, and therefore no monitoring or recalculation of the emission factor during the crediting period is required.
4. 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 under sub-para 3(a) above.

2.2. Entry into force and validity

5. This standardized baseline enters into force upon adoption by the CDM Executive Board on 7 October 2018. This standardized baseline is valid from 7 October 2018 to 6 October 2021.

3. Normative references

6. This standardized baseline is based on the proposed new standardized baseline PSB0044 “Emission Factor of the Electricity System of Southern Africa” submitted by the designated national authority (DNA) of Botswana.
7. This standardized baseline is derived from version 05.0 of the grid tool.
8. For more information regarding proposed new standardized baselines as well as their consideration by the CDM Executive Board, please refer to:
<http://cdm.unfccc.int/methodologies/standard_base/index.html>.

4. Definitions

9. **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.
10. The definitions contained in the Glossary of CDM terms shall apply.
11. The definitions contained in the grid tool shall apply.

5. Parameters and values

12. This standardized baseline provides values for the parameters identified in table 1.

Table 1. Grid emission factors for interconnected electricity system of the SAPP

Parameter	Unit	Description	Applicable project types	Applicable values		
				First crediting period	Second crediting period	Third crediting period
EF_{grid, OM, y}	tCO ₂ /MWh	Operating margin CO ₂ emission factor for interconnected electricity system of the SAPP	All project activities	1.0262	1.0262	1.0262
EF_{grid, BM, y}	tCO ₂ /MWh	Build margin CO ₂ emission factor for interconnected electricity system of the SAPP	All project activities	0.8700	0.8700	0.8700

Parameter	Unit	Description	Applicable project types	Applicable values		
				First crediting period	Second crediting period	Third crediting period
EF_{grid, CM, y}	tCO ₂ /MWh	Combined margin CO ₂ emission factor for interconnected electricity system of the SAPP	All project activities except wind and solar power generation	0.9481	0.9091	0.9091
EF_{grid, CM, y}	tCO ₂ /MWh	Combined margin CO ₂ emission factor for interconnected electricity system of the SAPP	Wind and solar power generation project activities	0.9871	0.9871	0.9871

Document information

Version	Date	Description
01.0	7 October 2018	Initial publication. This standardized baseline is approved by CDM Executive Board in accordance with the "Procedure for development, revision, clarification and update of standardized baselines" (CDM-EB63-A28-PROC).
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