

**ASB0006**

## Standardized baseline

---

# Grid emission factor for the national power grid of Uganda

Version 01.0

<b>TABLE OF CONTENTS</b>		<b>Page</b>
<b>1. INTRODUCTION .....</b>		<b>3</b>
<b>2. DEFINITIONS .....</b>		<b>3</b>
<b>3. SCOPE, APPLICABILITY, ENTRY INTO FORCE AND VALIDITY .....</b>		<b>3</b>
3.1. Scope .....		3
3.2. Applicability .....		4
3.3. Entry into force .....		4
3.4. Validity of this standardized baseline .....		4
<b>4. PARAMETERS AND VALUES.....</b>		<b>4</b>

## **1. Introduction**

1. This standardized baseline provides the values of the carbon dioxide (CO<sub>2</sub>) emission factors for the electricity system of Uganda.

## **2. Definitions**

2. The definitions contained in version 04.0.0 of the “Tool to calculate the emission factor for an electricity system” shall apply.
3. For the purpose of this standardized baseline, the project electricity system is the spatial extent of the power plants that are physically connected through transmission and distribution lines to supply electricity to the national power grid of Uganda.

## **3. Scope, applicability, entry into force and validity**

### **3.1. Scope**

4. This standardized baseline is based on the proposed new standardized baseline PSB0012 “Uganda’s Grid Emission Factor Standardised Baseline” submitted by the designated national authority (DNA) of Uganda.
5. This standardized baseline has been developed using version 04.0.0 of the “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 and its consideration by the Executive Board of the clean development mechanism, please refer to [http://cdm.unfccc.int/methodologies/standard\\_base/index.html](http://cdm.unfccc.int/methodologies/standard_base/index.html).
7. This standardized baseline provides the values of the baseline CO<sub>2</sub> emission factors for the project electricity system for the determination of baseline emissions, project emissions and leakage emissions. The CO<sub>2</sub> 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 clean development mechanism (CDM) projects in Uganda.
9. 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 activity requires determination of CO<sub>2</sub> emission factor(s) through the application of the tool, for the determination of baseline emissions, project emissions and/or leakage emissions;
  - (c) The option in the tool of determining an "ex-ante" CO<sub>2</sub> emission factor(s) applicable throughout the crediting period is only applicable data vintage to the project participants. The option of determining the CO<sub>2</sub> emission factor(s) "ex-post" shall not be used.
10. Project participants who do not wish to use the latest approved and valid values of this standardized baseline may estimate the grid emission factor for their CDM project, using the latest applicable version of the tool.

### **3.3. Entry into force**

11. This standardized baseline shall enter into force immediately upon adoption by the CDM Executive Board on 21 October 2014.

### **3.4. Validity of this standardized baseline**

12. The values shown in tables 1 and 2 below are valid for three years from the date of adoption of the standardized baseline by the CDM Executive Board.
13. The latest approved version of the tool shall be used to update the standardized baseline.

## **4. Parameters and values**

14. This standardized baseline provides values for the parameters mentioned in tables 1 and 2 below.
15. Table 1 specifies values without including off-grid power units in the project electricity system; Table 2 specifies values which include off-grid power units in the project electricity system. Table 1 is applicable to all type of project activities. Project activities implementing grid-connected renewable power plants may alternatively use the values in Table 2 for their first crediting period.

**Table 1. Grid emission factors derived without including off-grid power units in the project electricity system**

Parameter	SI Unit	Description	Applicable crediting periods	Applicable project types	Value
$EF_{grid,CM,y}$	tCO <sub>2</sub> /MWh	Combined margin CO <sub>2</sub> emission factor for the project electricity system	First, second and third crediting periods	Wind and solar power generation project activities	0.543
$EF_{grid,CM,y}$	tCO <sub>2</sub> /MWh	Combined margin CO <sub>2</sub> emission factor for the project electricity system	First crediting period	All project activities except wind and solar power generation	0.513
$EF_{grid,CM,y}$	tCO <sub>2</sub> /MWh	Combined margin CO <sub>2</sub> emission factor for the project electricity system	Second and third crediting periods	All project activities except wind and solar power generation	0.484
$EF_{grid,BM,y}$	tCO <sub>2</sub> /MWh	Build margin CO <sub>2</sub> emission factor for the project electricity system	First, second and third crediting periods	All project activities	0.454
$EF_{grid,OM,y}$	tCO <sub>2</sub> /MWh	Operating margin CO <sub>2</sub> emission factor for the project electricity system	First, second and third crediting periods	All project activities	0.573

**Table 2. Grid emission factors derived by the inclusion of off-grid power units in the project electricity system**

Parameter	SI Unit	Description	Applicable crediting periods	Applicable project types	Value
$EF_{grid,CM,y}$	tCO <sub>2</sub> /MWh	Combined margin CO <sub>2</sub> emission factor for the project electricity system	First crediting period	Wind and solar power generation project activities	0.582
$EF_{grid,CM,y}$	tCO <sub>2</sub> /MWh	Combined margin CO <sub>2</sub> emission factor for the project electricity system	First crediting period	All renewable power generation project activities except wind and solar	0.550
$EF_{grid,BM,y}$	tCO <sub>2</sub> /MWh	Build margin CO <sub>2</sub> emission factor for the project electricity system	First crediting period	All renewable power generation project activities	0.485
$EF_{grid,OM,y}$	tCO <sub>2</sub> /MWh	Operating margin CO <sub>2</sub> emission factor for the project electricity system	First crediting period	All renewable power generation project activities	0.614

-----

ASB0006

Standardized baseline: Grid emission factor for the national power grid of Uganda

Version 01.0

---

### Document information

---

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	21 October 2014	Initial publication. This standardized baseline is approved by the CDM Executive Board in accordance with the "Procedure for development, revision, clarification and update of standardized baselines" (CDM-EB63-A28-PROC).

---

Decision Class: Regulatory  
Document Type: Standard  
Business Function: Methodology  
Keywords: electricity generation, electric power transmission, grid emission factors, standardized baselines, Uganda

---