

**ASB0045-2019**

Standardized baseline

---

# Grid Emission Factors of Guyana

Version 01.0



**United Nations**  
Framework Convention on  
Climate Change

<b>TABLE OF CONTENTS</b>		<b>Page</b>
<b>1. INTRODUCTION .....</b>		<b>3</b>
<b>2. SCOPE, APPLICABILITY, AND ENTRY INTO FORCE .....</b>		<b>3</b>
2.1. Scope and applicability .....		3
2.2. Entry into force and validity .....		3
<b>3. NORMATIVE REFERENCES .....</b>		<b>3</b>
<b>4. DEFINITIONS .....</b>		<b>4</b>
<b>5. PARAMETERS AND VALUES .....</b>		<b>4</b>

## **1. Introduction**

1. This standardized baseline provides the values for grid emission factors (i.e. the carbon dioxide (CO<sub>2</sub>) emission factor) for the electricity systems of Guyana.

## **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 the electricity systems of Guyana. It was derived using the ex-ante data vintage option of the “TOOL07: Tool to calculate the emission factor for an electricity system” (hereinafter referred to as “the grid tool”) based on 2014–2016 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 Guyana and is connected to the one of the project electricity systems (grid);
  - (b) The CDM approved methodology that is applied to the project activity requires the determination of CO<sub>2</sub> emission factor(s) through the application of the grid tool;
  - (c) The project activity uses ex ante option for the grid emission factor as indicated in the tool i.e. no monitoring and recalculation of the emissions factor during the crediting period is required.
4. Project participants who do not wish to use this standardized baseline may alternatively estimate their own values for the grid emission factor, by applying the latest applicable version of the grid tool.

### **2.2. Entry into force and validity**

5. This standardized baseline enters into force upon adoption by the CDM Executive Board on 2 December 2019. This standardized baseline is valid up to 3 years i.e., from 2 December 2019 to 1 December 2022.

## **3. Normative references**

6. This standardized baseline is based on the proposed new standardized baseline TSB0011 “Grid emission factor of Guyana”.
7. This standardized baseline is derived from version 07.0 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](http://cdm.unfccc.int/methodologies/standard_base/index.html)>.

## 4. Definitions

9. **Project electricity system** - the spatial extent of the power units that are physically connected through transmission and distribution lines to supply electricity to the following independent electricity systems of Guyana:
- (a) Demerara Berbice Interconnected System;
  - (b) Bartica Isolated system;
  - (c) Leguan Isolated system;
  - (d) Wakenaam Isolated system;
  - (e) Anna Regina Isolated system.
10. The definitions contained in the Glossary of CDM terms shall apply.
11. The definitions contained in the tool shall apply.

## 5. Parameters and values

12. This standardized baseline provides values for the parameters mentioned in tables 1 to 5.

**Table 1. Grid emission factors for the Demerara Berbice Interconnected System of Guyana**

Parameter	Unit	Description	Applicable project types	Applicable values		
				First crediting period	Second crediting period	Third crediting period
$EF_{grid,OM,y}$	tCO <sub>2</sub> /MWh	Operating margin CO <sub>2</sub> emission factor for the project electricity system	All project activities	0.666		
$EF_{grid,BM,y}$	tCO <sub>2</sub> /MWh	Build margin CO <sub>2</sub> emission factor for the project electricity system	All project activities	0.647		
$EF_{grid,CM,y}$	tCO <sub>2</sub> /MWh	Combined margin CO <sub>2</sub> emission factor for the project electricity system	Wind and solar power generation project activities	0.661		
$EF_{grid,CM,y}$	tCO <sub>2</sub> /MWh	Combined margin CO <sub>2</sub> emission factor for the project electricity system	All project activities except wind and solar power generation project activities	0.656	0.651	

**Table 2. Grid emission factors for the Bartica Isolated system of Guyana**

Parameter	Unit	Description	Applicable project types	Applicable values		
				First crediting period	Second crediting period	Third crediting period
<i>EF<sub>grid, Simplified CM</sub></i>	tCO <sub>2</sub> /MWh	Simplified combined margin CO <sub>2</sub> emission factor for the Bartica Isolated system of Guyana	All project activities	0.854		

**Table 3. Grid emission factors for the Leguan Isolated system of Guyana**

Parameter	Unit	Description	Applicable project types	Applicable values		
				First crediting period	Second crediting period	Third crediting period
<i>EF<sub>grid, Simplified CM</sub></i>	tCO <sub>2</sub> /MWh	Simplified combined margin CO <sub>2</sub> emission factor for the Leguan Isolated system of Guyana	All project activities	0.936		

**Table 4. Grid emission factors for the Wakenaam Isolated system of Guyana**

Parameter	Unit	Description	Applicable project types	Applicable values		
				First crediting period	Second crediting period	Third crediting period
<i>EF<sub>grid, Simplified CM</sub></i>	tCO <sub>2</sub> /MWh	Simplified combined margin CO <sub>2</sub> emission factor for the Wakenaam Isolated system of Guyana	All project activities	0.901		

**Table 5. Grid emission factors for the Anna Regina Isolated system of Guyana**

Parameter	Unit	Description	Applicable project types	Applicable values		
				First crediting period	Second crediting period	Third crediting period
<i>EF<sub>grid, Simplified CM</sub></i>	tCO <sub>2</sub> /MWh	Simplified combined margin CO <sub>2</sub> emission factor for the Anna Regina Isolated system of Guyana	All project activities	0.760		

-----

#### Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	2 December 2019	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).

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