



Assessment Report for CDM proposed standardized baseline (Version 01.0)

*(To be **used** by the **UNFCCC secretariat** in assessing the quality of a proposed standardized baseline only when requested by eligible DNAs.)*

Title of proposed standardized baseline:	Emission factors for the electricity grid systems in The Gambia
Reference of proposed standardized baseline:	PSB0026
Sector:	Electricity generation/consumption sector
Name of DNA:	The Gambia
Dates Reviewed:	<p>First submission was received on 8 September 2014</p> <p>Second submission was received on 8 November 2014</p> <p>Third submission was received on 22 December 2014</p> <p>Initial assessment was finalized on 8 January 2015</p> <p>First QA/QC assessment was finalized on 8 January 2015</p> <p>Fourth submission was received on 22 January 2015</p> <p>Second QA/QC assessment and assessment report was finalized on 2 February 2015</p>

Summary of Proposed Standardized Baseline:

Scope and application of the proposed standardized baseline:

The proposed standardized baseline (PSB) is submitted for a single host country, The Gambia, and is developed for the purpose of:

- Baseline emission estimation

The sector to which this proposed standardized baseline applies is the electricity generation/consumption sector.

The standardized baseline (SB) has been developed by the United Nations Development Programme and Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. on behalf of the designated national authority (DNA) of The Gambia.

Description of the proposed standardized baseline:

The Gambia has one central grid around its capital Banjul with an installed capacity of more than 15 MW and six regional mini-grids with installed capacity of less than 15 MW each. Thus the PSB has proposed two separate grid emission factors, one for the central grid and one for each of the six mini-grids. The grid emission factor for the central grid is determined using the "Tool to calculate the emission factor for an electricity system" (version 04.0.0) while the grid emission factor for the six mini-grids is determined as per the provisions of small-scale methodology AMS-I.F "Renewable electricity generation for captive use and mini-grid" (version 2.0).

The key data parameters related to this PSB are:

- Total annual electricity generation;
- Net calorific value (NCV) of fuel(s);
- Fuel emission factor(s); and
- Total annual fuel consumption.

The data for the above parameters were provided by the National Water and Electricity Company (NAWEC) for all heavy fuel oil (HFO) plants operated by NAWEC and the Gambia Electricity Company (GEC) and an engineering consultant company "Consultant for renewable energy power projects" (CONREPP) for Batokunku Wind Power Plant and Tanji Wind Power Plant.

The central grid does not have any interconnection with other grid systems in The Gambia or grid systems from neighbouring countries.

The build margin calculated for the central grid uses the data for a set of plants whose cumulative share of power generation is equal to or greater than 20 per cent of energy generation in 2012.

The data vintage for the PSB is three successive years (2010–2012) for each power plant connected to the central grid and six mini-grids.

Summary of Assessment:

Assessment process:

The assessment consisted of the following:

- Initial document review and findings – first, second and third round of submissions;
- Review of the additional document submitted based on the initial assessment findings;
- Issue of further findings seeking clarifications from the DNA;
- Consultation with the DNA regarding the findings raised;
- Review of the additional document submitted based on the assessment findings;
- Resolution of clarifications;
- Conclusion of the final assessment report.

A desk review was performed against the requirements for quality assurance and quality control of data as per the "Guidelines for quality assurance and quality control of data used in the establishment of standardized baselines", version 2.0 (QA/QC guidelines) on the below-mentioned data/information submitted as part of the PSB.

The first assessment was performed on the following submission (third submission) dated 22 December 2014, which was considered complete:

- PSB (form F-CDM-PSB) dated 10 December 2014;
- Excel file containing supporting data and calculation of grid emission factor, version 2.0 dated 5 November 2014;
- Data delivery protocols for the period 2010–2012 for all power plants connected to the central grid;
- A document "Procedures for Data Gathering QA and QC", version 1.0, dated 10 December 2014;
- A document "Public Consultation Protocol", version 1.0, dated 1 June 2014.

The assessment findings were communicated to the DNA on 8 January 2015, in response to which the DNA submitted the revised documents and additional relevant documents.

The fourth submission dated 22 January 2015 included:

- Response to assessment findings;
- Revised Excel file containing supporting data and calculation of grid emission factor, version 2.1, dated 22 January 2015;
- Data delivery protocol for the year 2010 for Brikama Power Plant (GEC).

The fourth submission was considered to clarify all issues raised by the secretariat.

Assessment findings and resolution:

The following section covers the explanation on how guidance provided by the QA/QC guidelines was followed by the DNA while collecting, compiling and processing the data required for development of the PSB.

The details of findings identified by the secretariat and the responses provided by the DNA/(SB developer) are summarized in appendix 1 to this document.

Requirements	Explanation
The data quality was checked before/during/or after data collection:	Data quality has been checked during the data collection, compilation and processing.
(a) QC system (resource/procedure) was implemented.	QC report has been submitted, which provides clear explanation of the QC system.
(b) QC activities was clearly documented (e.g. QC report).	QC report has been submitted, which provides explanation of the QC activities.
Were all required documents and data available for assessment?	All the data were available and easily accessible for assessment.
The proposed standardized baselines were established through consultation processes:	The primary data used for the PSB has undergone the following review and consultation process.
(a) The sector or data providers were engaged and communicated enough to provide valid inputs/data.	The data used for calculation of the grid emission factor were provided by the National Water and Electricity Company (NAWEC) and an engineering consultant company "Consultant for renewable energy power projects" (CONREPP).
(b) Stakeholders were invited to provide inputs and comments where applicable.	The DNA of The Gambia with support from the United Nations Development Programme and Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. has checked the transparency in the process of data supply and calculations.
(c) The public consultation report was clearly documented if applicable.	The document "Public consultation protocol" from the DNA provides information on the consultation process.
The data quality objectives of the QA/QC Guidelines were met. If the QC report is available, this session can be skipped unless further explanation is needed (when conservative approaches were taken, further explanation is required):	The QC report has been made available by the DNA, which is in accordance with the guidance given on data quality objectives by the QA/QC guidelines.
(a) Relevant data were used to the establishment of sector-specific standardized baselines.	As per QC report.
(b) The data scope was comprehensive enough to produce "true and fair" representative standardized baselines in the particular sector.	As per QC report.
(c) The key data and information are consistently presented.	As per QC report.
(d) The credibility of the data sources was ensured.	As per QC report.

<p>(e) The most recent available data were utilized. If applicable, the pre-determined data vintage was met.</p>	<p>As per QC report.</p>
<p>(f) Duplications and errors were avoided or corrected.</p>	<p>As per QC report.</p>
<p>(g) If any, assumptions or interpretations for data processing/ calculations were justifiable.</p>	<p>As per QC report.</p>
<p>(h) The security of datasets including confidentiality was well maintained in accordance with pre-established procedures if requested.</p>	<p>As per QC report.</p>
<p>The assessment is concluded successfully, based on the overall evaluation.</p>	<p>The information presented by the DNA in the QC report provides assurance that the QA/QC system for development of PSB meets the data quality objectives of the QA/QC guidelines.</p>

Appendix 1. Findings and resolution

CL No.	Request for Clarification (CL)	Reference to data quality objectives of guidelines on quality assurance and quality control of data used for sector-specific standardized baselines	Responses and corrective actions of DNA	Conclusion (open/closed)
1	<p>Data delivery protocol</p> <p>(a) Several data delivery protocols were submitted, which included raw data from power plants. However, one data delivery protocol for the year 2010 is missing for the Brikama Power Plant (GEC). The DNA is requested to submit the raw data for Brikama Power Plant (GEC).</p> <p>(b) As per the raw data (data delivery protocol) submitted for Kotu Power Plant, the 2012 fuel consumption value is 22.93 kt while the submission mentions it as 22.83 kt. The DNA is requested to remove the inconsistency in fuel consumption values for Kotu Power Plant.</p>	<p>Consistency and Traceability of data</p> <p>As per paragraph 15 c) and k) of the "Guideline on Quality assurance and quality control of data used in the establishment of standardized baselines", version 2.0</p>	<p>(a) The raw data for the Brikama Power Plant (GEC) for 2010 is submitted as per the attached.</p> <p>(b) Corrections are made in Attachment 5 to the submission as required. The new version is attached. As the correction did not result in a change in the estimated values of the GEFs, no changes in the SB submission form are made.</p>	<p>Closed.</p> <p>The data delivery protocol for Brikama Power Plant (GEC) is submitted by the DNA. The data provided in the Excel sheet for Brikama Power Plant (GEC) matches the data provided under the data delivery protocol. The DNA has submitted a revised Excel sheet which reflects the fuel consumption of 22.93 kt for Kotu Power Plant as reported in its data delivery protocol.</p>

History of the document

Version	Date	Nature of revision(s)
01.0	27 May 2013	Initial publication.
Decision Class: Regulatory Document Type: Form, (for Secretariat use only) Business Function: Methodology Keywords: Assessment, Standardized baselines, Methodologies		