

# POA VALIDATION REPORT

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Ropeways Transport Limited

**POA Title: Cable Propelled Mass  
Transit Projects in Nigeria**

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<b>Date of Issue:</b>		<b>Programme of Activity Number:</b>	
29/09/2016		CDM.VAL3634 POA	
<b>Programme of Activity Title:</b>			
Cable Propelled Mass Transit Projects in Nigeria			
<b>Organisation:</b>		<b>Client / Managing Entity:</b>	
SGS United Kingdom Limited		Ropeways Transport Limited, Nigeria	
<b>Publication of POA-DD, CPA-DD Generic and CPA-DD Specific for Stakeholders Consultation</b>			
<b>Commenting Period:</b>		29/10/2013 – 27/11/2013	
First POA-DD Version and Date:		Version 01, dated 22/10/2013	
Final POA-DD Version and Date:		Version 15, dated 28/09/2016	
<b>Summary:</b>			
<p>Ropeways Transport Limited, Nigeria has commissioned SGS to perform the validation of the Programme of Activity entitled "Cable Propelled Mass Transit Projects in Nigeria".</p> <p>Methodology Used: AMS III.U. Version 01, valid from 26/09/2008 to 23/07/2015 and requests for registration can be submitted until 19/03/2016 23:59:59 GMT.</p> <p>The scope of the validation is defined as an independent and objective review of the Programme of Activity design document, the Programme of Activity baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against CDM Validation and Verification Standard (Version 09.0), Kyoto Protocol requirements, CDM Executive Board/UNFCCC rules.</p> <p>The report is based on the assessment of the Programme of Activity design document, including the Generic Component project activity design document, undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to document reviews, follow up actions (e.g. site visit, telephone or e-mail interviews) and also the review of the applicable simplified methodology and underlying formulae and calculations.</p> <p>The validation report and the annexes describe a total of 08 findings which include:</p> <ul style="list-style-type: none"> <li>• 06 Corrective Action Requests (CARs);</li> <li>• 01 Clarification Requests (CLs);</li> <li>• 01 Forward Action Requests (FARs);</li> </ul> <p>All findings have been closed satisfactorily except FAR. The Programme of Activity will be recommended to the CDM Executive Board for registration.</p>			
<b>Subject:</b>		<b>Document Distribution</b>	
CDM POA Programme of Activity Validation			
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## Abbreviations

AMS	Approved Small Scale Methodology
CAR	Corrective Action Request
CDM EB	CDM Executive Board
CER	Certified Emission Reduction
CPA	Component Project Activity
CPA-DD	Component Project Activity Design Document
CME	Coordinating/Managing Entity
CL	Clarification Request
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
CoP	Conference of the Parties
DOE	Designated Operational Entity
DNA	Designated National Authority
EIA	Environmental Impact Assessment
ESIA	Environment and Social Impact Assessment
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
IPCC	Intergovernmental Panel on Climate Change
ISSRC	International Sustainable Systems Research Center
ISHC	International Stake Holder Consultation
KWh	Kilo Watt hour
LA	Lead Assessor
LAMATA	Lagos Metropolitan Area Transport Authority
LCCT	Lagos Cable Car Transport
LoA	Letter of approval
LSC	Local Stakeholder Consultation
MoC	Modalities of Communication
ODA	Official Development Assistance
POA-DD	Programme of Activity Design Document
QA/QC	Quality Assurance & Quality Control
RFR	Request for Registration
SSC	Small Scale
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation & Verification Standard,

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## 1. Validation Opinion

SGS United Kingdom Ltd has been contracted by Ropeways Transport Limited, Nigeria to perform a validation of the Programme of Activity entitled "Cable Propelled Mass Transit Projects in Nigeria".


The Validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism (CDM POA), Validation and Verification Standard (Version 09.0) and host country criteria, as well as criteria given to provide for consistent Programme of Activity operations, monitoring and reporting.

By implementing cable propelled mass transit in densely populated urban areas of Nigeria through proposed Programme of Activity, the Programme of Activity will result in reductions of greenhouse gas (GHG) emissions which would have occurred through usage of passenger cars and transit buses that are real, measurable and give long-term benefits to the mitigation of climate change.

In our opinion, the Programme of Activity meets all relevant UNFCCC, CDM POA criteria and all relevant host country criteria of the host country (Federal Republic of Nigeria) involved. The Programme of Activity correctly applies methodology AMS III.U Version 01. It is demonstrated that the Programme of Activity is not a likely baseline scenario. Emission reductions attributable to the Programme of Activity are hence additional to any that would occur in the absence of the Programme of Activity.

The Programme of Activity will hence be recommended by SGS for registration with the UNFCCC.

### Signed on Behalf of the Validation Body by Authorized Signatory



Signature:

Name: Jonathan Hall

Date: 30/09/2016

## 2. Introduction

### 2.1 Objective

Ropeways Transport Limited, Nigeria has commissioned SGS to perform the validation of the Programme of Activity entitled “Cable Propelled Mass Transit Projects in Nigeria” with regards to the relevant requirements for Clean Development Mechanism Programme of activities (CDM POA). The purpose of a validation is to have an independent third party assessment of the Programme of Activity design document. In particular, the Programme of Activity baseline, the monitoring plan (MP) and the Programme of Activity’s compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the Programme of Activity design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is seen as necessary to provide assurance to stakeholders of the quality of the Programme of Activity and its intended generation of certified emission reduction (CER). UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM POA rules and modalities and related decisions by the COP/MOP and the CDM POA Executive Board.

### 2.2 Scope

The scope of the validation is defined as an independent and objective review of the Programme of Activity design document, the Programme of Activity baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. SGS has employed a risk-based approach in the validation, focusing on the identification of significant risks for Programme of Activity implementation and the generation of CERs.

The validation is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the Programme of Activity design.

### 2.3 GHG Programme of Activity Description

The objective of the POA is to implement cable propelled mass transit in densely populated urban areas of Nigeria. In this way, fossil fuel that would have been used mostly in public buses (known locally as molue and danfo) for road-based transportation is avoided partly or completely due to implementation of the proposed POA. Therefore, the POA will reduce GHG emissions and give long-term benefits to the mitigation of climate change.

The POA will be implemented and managed by Ropeways Transport Limited, Nigeria. Ropeways Transport Limited is both the “Coordinating/Managing Entity” and the Project Participant (hereinafter referred to as “CME” or PP). Ropeways Transport Limited will promote and introduce this programme to densely populated areas of Northern and Southern states of the host country and will act as the focal point with the CDM Executive Board in all the aspects relating to validation, registration verification, and issuance of carbon credits generated by the POA. Ropeways Transport Limited, Nigeria will have a written agreement with project developers who submit CPAs as part of the PoA, which will be checked during each CPA inclusion.

### 2.4 The Names and Roles of the Validation Team Members

Assessment Team	Role
Dr. Vijaybhai Shankarbhai Patel	Lead Assessor
Siddharth Yadav	Technical Area Expert TA 7.1 (previous)
Suresh Jain	Technical Area Expert TA 7.1 (current)
Mahua Ray Bose	Statistical Expert
Dominic Etuk	Local Assessor

### 3. Methodology

#### 3.1 Review of CDM -POA-DD, Generic CPA-DD and Additional Documentation

The validation is performed primarily as a document review of the publicly available POA DD<sup>/1/</sup> version 01 dated 22/10/2013, and subsequent version 02 dated 24/02/2014, version 03 dated 22/05/2014, version 04 dated 23/10/2012, version 02 dated 18/03/2013, version 03 dated 10/06/2013 and version 04 dated 18/07/2014, version 05 dated 19/09/2014, version 06 dated 14/10/2014, version 07 dated 14/11/2014 and version 8 dated 30/12/2014, version 9 dated 22/05/2015, version 10 dated 06/08/2015, version 11 dated 01/02/2016, version 12 dated 24/06/2016, version 13 dated 15/07/2016, version 14 dated 05/08/2016 and version 15 dated 28/09/2016 (final version). The assessment is performed by trained assessors using a validation protocol attached as Annex 2 Table 2.

The site visit was performed from 02/12/2013 to 03/12/2013. The site visit results are summarized as a separate checklist as Annex 1 in this report.

#### 3.2 Use of the Validation Protocol

The validation protocol used for the assessment is designed in accordance with the Validation and Verification Standard, Version 09.0. It serves the following purposes:

- it organises, details and clarifies the requirements the Programme of Activity is expected to meet; and
- it documents both how a particular requirement has been validated and the result of the validation (reporting).

The validation protocol consists of several tables. The different columns in these tables are described below.

Checklist Question	Ref ID	Means of Verification (MoV)	Comment	Conclusion/ CARs/CLs
The various requirements are linked to checklist questions the Programme of Activity should meet.	Lists any references and sources used in the validation process. Full details are provided in the table at the bottom of the checklist.	Explains how conformance with the checklist question is investigated. Examples of means of validation are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (Y), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). Clarification Request (CL) is used when the validation team has identified a need for further clarification.

The completed validation protocol for this Programme of Activity is attached as Annex 2 to this report.

#### 3.3 Findings

As an outcome of the validation process, the team can raise different types of findings

**A Clarification Request (CL)** is raised if information is insufficient or not clear enough to determine whether the applicable CDM POA requirements have been met

Where a non-conformance arises the Assessor shall raise a **Corrective Action Request (CAR)**. A CAR is issued, where:



- I. The Programme of Activity participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- II. The CDM POA requirements have not been met;
- III. There is a risk that emission reductions cannot be monitored or calculated.

The validation process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a CL may result in a CAR. Information or clarifications provided as a result of a CL may also lead to a CAR.

**A Forward Action Request (FAR)** is raised during validation to highlight issues related to Programme of Activity implementation that require review during the first verification of the project activity. FARs shall not relate to the CDM POA requirements for registration.

Corrective Action Requests and Clarification Requests are raised in the draft validation protocol and detailed in a separate form (Annex A.3). In this form, the Project Developer is given the opportunity to "close" outstanding CARs and respond to CLs and FARs.

### 3.4 Internal Quality Control

Following the completion of the assessment process and a recommendation by the Assessment team, all documentation is forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team. Findings can be raised at this stage and client must address them within agreed timeline.

#### Technical Review Team

Technical Review	Role
Ajoy Gupta	Technical Reviewer
Juan Carlos Herrera	Technical Area Expert TA 7.1

## 4. Validation Findings

### 4.1 Approval

The host Party for this project is the Federal Republic of Nigeria. The Federal Republic of Nigeria has ratified the Kyoto protocol on 10<sup>th</sup> December 2004. This was checked from the UNFCCC website [https://unfccc.int/kyoto\\_protocol/status\\_of\\_ratification/items/2613.php](https://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php).

The CME has submitted to SGS a Letter of Authorization from the Federal Ministry of Environment, Nigeria (Ref: FMENV/DCC/285/I dated 21/02/2014)<sup>/2.a/</sup>. PP has also submitted another letter issued from the Federal Ministry of Environment, Nigeria (Ref: FMENV/DCC/285/I) dated 28/06/2014<sup>/2.b/</sup> which authorizes “Ropeways Transport Limited, Nigeria” as CME for the proposed CDM Programme of Activity. The Letter of Approval (LoA) issued from the host country DNA has confirmed that the host Party involved has approved the POA titled as ‘*Cable Propelled Mass Transit Projects in Nigeria*’, which complies with the requirement stipulated in the paragraph 43-44 of VVS, version 09.0.

The name of the programme of activity and the PP in the Letter of Approval issued by the Host Country DNA office was verified against section A.1 and section A.4 of the final version of the POA-PDD<sup>/1/</sup> and was found to be consistent. The assessment team has confirmed that the letter of approval<sup>/2/</sup> has been issued by the host country DNA and is valid for the proposed CDM Programme of Activity. The LoA<sup>/2/</sup> clearly confirms that;

- (a) The Government of Nigeria has ratified the Kyoto Protocol on 10/12/2004 and is Party to the Kyoto Protocol;
- (b) Participation is voluntary;
- (c) The Host Country DNA has approved the proposed CDM POA for the purposes of Article 12 of Kyoto Protocol
- (d) The proposed CDM programme of activity contributes to Sustainable Development in Federal Republic of Nigeria in line with the requirement of para 57 of the VVS, version 09.0;
- (e) The LOA refers to the unique proposed CDM Programme of Activity title – “Cable Propelled Mass Transit Projects in Nigeria” – as mentioned in the POA-DD being submitted for registration;
- (f) Ropeways Transport Limited, Nigeria is the Coordinating/ Managing Entity of the proposed CDM POA.

The assessment team also confirmed that the Letter of Approval<sup>/2/</sup> is unconditional with respect to (a) to (f) mentioned above.

It is further confirmed in accordance with para 44-48 of the VVS, version 09.0 that:

- (a) The letter of approval<sup>/2/</sup> issued by the DNA of Nigeria “Federal Ministry of Environment, Nigeria” bearing ref. no. FMENV/DCC/285/I) dated 21/02/2014 has been received and valid for the proposed CDM programme of activity under validation.
- (b) The authenticity of LoA was further cross checked from the host country DNA by email communication, dated - 27/08/2014 from Mr. Samuel Adeoye Adejuwon (Director, Department of Climate Change, Federal Ministry of Environment) at the email address [jareadejuwon@yahoo.com](mailto:jareadejuwon@yahoo.com)<sup>/12/</sup>. The signatory of the LoA was found to be consistent with the contact details for the authorized focal point for Nigeria mentioned on the UNFCCC website/ DNA section: <http://cdm.unfccc.int/DNA/index.html>. The assessment team concluded that the LoA<sup>/2/</sup> is authentic and meets the requirements of Para 45 & 47 of VVS version 09.0 and thus accepted.

With reference to paragraph 43 of VVS, version 09.0, the assessment team validated and confirmed that the host Party (Federal Republic of Nigeria) involved has been indicated in the POA-DD as the host country for the proposed programme of activity and the DNA of Nigeria has provided a written letter of approval<sup>/2/</sup>, in the name of the Coordinating/ Managing Entity listed in the POA DD.

## Discussions of CARs/CLs:

**CAR #1** was raised as the CME/PP was requested to submit the letter of approval of its coordination of the POA from the host Party involved. In response, the PP submitted two Letters of Approval/Authorization from the Federal Ministry of Environment, Abuja (Ref: FMENV/DCC/285/I) dated 21/02/2014<sup>2.a/</sup> and 28/06/2014<sup>2.b/</sup>. The submitted letters of approval were found to be complying in line with paragraphs 44 to 48 of VVS version 09.0<sup>6.b/</sup>.

**CAR #1** was further extended as a result of comments raised during UN Information & Reporting Check and this CAR was reopened due the following points:

1. With regard to the eligibility criteria of additionality demonstration, the PoA-DD Section B.2 (page 7) had not included the objective conditions that ensure the CPA meets the requirements pertaining to the demonstration of additionality.
2. PoA-DD Section B.2 has not defined the eligibility criteria related to check of debundling with reference to the requirements specified under Methodological Tool for Assessment of debundling for small-scale project activities, ver.04 (EB 83 Annex 13) with special emphasis to the paragraph 12, 13 and 15. Similarly Generic CPA-DD Section B.5 had not also discussed how the eligibility of a generic CPA has been demonstrated and fulfilled against the requirement of above stated Methodological Tool (EB 83 Annex 13).
3. The number and content of eligibility criteria in section B.2 of the PoA-DD is not consistent with section B.2 of the generic CPA-DD. For example, there are 13 criteria in PoA-DD whereas 12 criteria are in the generic CPA-DD and criteria (f) in PoA-DD was not consistent with the content of Standard for Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for PoA, ver.03, paragraph 16.
4. With regard to the determination of ex-ante parameter SFC at CPA level (i.e. specific fuel consumed of vehicle category), the methodology alternative(s) to be applied is (are) not consistently described in page 21 of the PoA DD. Since Alternative 2 of the applied methodology (i.e. use of fixed values based on national or international literature) is indicated/selected to determine the ex-ante values (page 21 of PoA DD, whereas it is also stated that individual CPAs can apply either of the alternatives as stated in the methodology depending on the option found suitable.

In response, CME has made the relevant corrections and submitted the revised POA-DD. The final revised POA-DD was assessed and the commented points were found to be resolved in the following manner:

1. Section B.2 of the revised POA-DD has been reviewed and found to be appropriately incorporated the objective eligibility conditions for CPA regarding demonstration of additionality criteria as per Methodological tool on the demonstration of additionality of small scale project activities, ver. 10 under the criteria #(f). This was found to be justified and hence accepted.
2. Section B.2 of the revised POA-DD has been reviewed and the eligibility criteria check on debundling aspect as per clause 5.3 of Methodological tool on assessment of debundling for SSC project activities, ver. 04.0 was found to be appropriately incorporated under the criteria #(l). This was found to be justified and hence accepted.
3. The sequence number and content of eligibility criteria description under section B.2 of the revised PoA-DD and section B.2 of the revised generic CPA-DD was reviewed and found to be consistent with each other and also consistent with the paragraph 18 of Standard: Demonstration of additionality, development of eligibility criteria and applications of multiple methodologies for programme of activities (CDM-EB65-A03-STAN), Version 04.0 (EB87 Annex 03). Thus accepted.
4. The revised description of ex-ante fixed parameter "*Specific fuel consumed by Passenger car/Taxi and Small buses of fuel type gasoline and Big buses of fuel type diesel*" under section B.6.2 of the POA DD was checked. The correction made to 'Source of data' was found to be consistent with applied Monitoring Methodology AMS-III.U version 1.0, paragraph 16 and 'Choice of data or Measurement methods and procedures' as rectified was also found justified for the POA framework. Thus accepted.

Therefore the final POA-DD was found to be justifying all the commented points with regard to the re-opened issues and hence CAR #1 was closed out.

The detailed discussion trail on above CAR #1 can be referred in section A.3 of this validation report.

#### **Validation Opinion:**

It was confirmed that the letter of approval conforms to all the requirement of the paragraphs 44-48 of VVS, version 09.0<sup>6.b/</sup>. The LoA does not mention any reference of validation report, hence paragraph 50 of VVS version 09.0 is not applicable herein.

### **4.2 Authorization**

The host Party for this project is the Federal Republic of Nigeria. The Federal Republic of Nigeria has ratified the Kyoto protocol on 10/12/2004.

The CME has submitted the host country DNA authorization letter<sup>2/</sup> as mentioned above in section 4.1 of this report. No Annex I Party has been identified in the POA DD<sup>1/</sup> (final version) and therefore no further Letter of Approval is required. It is observed that the CDM EB has agreed that the registration of a CDM Programme of Activity can take place without an Annex I Party being involved at the stage of registration although it should be noted that before CER can be transferred to an Annex 1 Party, a Letter of Approval from Annex 1 Party will need to be submitted. Further, the authenticity of the LoA was confirmed from the host country DNA by the assessment team as per the requirement of para 51-55 of VVS, version 09.0, by email communication, dated - 27/08/2014<sup>12/</sup>.

There is only one Coordinating/ Managing Entity in the proposed CDM PoA, which is Ropeways Transport Limited, Nigeria, and they have been authorised by the host country DNA, via letter<sup>2/</sup> dated 21/02/2014. It is to be noted further that in the second letter (Ref: FMENV/DCC/285/I) dated 28/06/2014<sup>12.b/</sup> the DNA also authorises their role as CME. The name of the Project Participant is "Ropeways Transport Limited, Nigeria", this has been listed in tabular form in section A.4, of the POA DD<sup>1/</sup> (final version) and also, this information was found to be consistent with the contact details provided in Appendix 1 of POA DD<sup>1/</sup> and is also consistent with the DNA approval letter. Thus the project activity meets the requirement as set out in the VVS version 09.0<sup>6.b/</sup>, paragraphs 51-55.

#### **Validation Opinion:**

The assessment team has confirmed that the project participant for the proposed project activity have been authorized by DNA of Federal Republic of Nigeria in a letter of approval<sup>12/</sup>. The name of the Coordinating/ Managing Entity is listed in tabular form in section A.4 of the POA DD<sup>1/</sup> (final version) and this information is consistent with the information provided in the Appendix 1 of the POA DD<sup>1/</sup> (final version). This is in line with the requirement of paragraph 51-55 of VVS<sup>6.b/</sup> version 09.0.

### **4.3 Modalities of Communication and MoC Statement**

The corporate identity of the CME (Ropeways Transport Limited, Nigeria) has been included in the MoC statement provided by the CME. The assessment team confirms that the MoC<sup>3/</sup> statement signed by the CME, dated 02/03/2016 have been correctly completed. The assessment team has validated the corporate identity of the project participant and focal point included in the Modalities of Communication (MoC) statement, as well as the ID cards of MOC signatories from ropeways including specimen signatures and employment status, of their authorized signatories during the validation site visit. The assessment team directly checked the evidence for corporate & personal identity of the authorised signatory during the validation site visit, and the information was checked with the details provided in the Appendix 1 of the PoA DD and the MoC, and was found to be correct and consistent. Thus the assessment team validated the information provided in the MoC as per the requirement of paragraph 60-63 of VVS version 09.0.

As per the requirements of paragraph 67(a)-(c), the assessment team also confirms that:

- a) The latest version (version 02.3) of the form “Modalities of Communication Statement” (CDM-MOC-FORM) has been used.
- b) The information required as per the CDM-MOC-FORM, including its annex 1 is correctly completed.
- c) The Project Participants authorized signatories signing the CDM-MOC-FORM correspond to the project participants authorised signatures included in CDM-MOC-FORM, annex 1.

#### **Discussion of CARs & CLs:**

**CAR #1** was raised requesting the CME to submit the modalities of communication form. The CME provided the MoC form dated 07/02/2014 correctly filled and duly signed by the authorised signatory of the CME. The MoC form was checked by the assessment team and was found to be correctly filled in.

Subsequently due to application of latest version 2.3 of the CDM-MOC-FORM, CME has further submitted the revised MOC statement signed on 02/03/2016. Thus **CAR #1** was closed out.

The detailed discussion on above CAR can be referred in section A.3 of this validation report.

#### **Validation Opinion:**

The assessment team confirms that the validation of the MoC<sup>/3/</sup> document submitted by the CME was done as per paragraphs 60, 66-68 of VVS, Version 09.0, and the CDM-MOC-FORM has been filled in as per the requirement of VVS, Version 09.0<sup>/6.b/</sup>.

#### **4.4 Programme of Activity Design Document including Programme of Activity Description**

Ropeways Transport Limited, Nigeria has planned and promoted “Cable Propelled Mass Transit Projects in Nigeria” (the POA). This POA will support the small scale projects, whose annually estimated emission reductions are less than 60,000 tCO<sub>2</sub>e. The objective of the POA is to provide sustainable, more efficient and less carbon intensive public transportation (through implementation of Cable Propelled Mass Transit Projects) in highly populated areas of Northern and Southern states of Nigeria.

It was understood that the population concentration is very high in the southern part of the country, particularly in the states of Lagos, Ibadan and Port Harcourt and in the Northern part especially in the states of Kano and Zaria. However, the existing roadway infrastructure is not adequate, therefore leading to severe traffic congestion. The validation team had validated the fact that the density of vehicles is as high as 222 per kilometre, in the state of Lagos against a national (Nigeria) average of 11 vehicles per kilometre. The appropriateness of the same has been checked and confirmed from a report on Environmental Impact Assessment Consultancy Services for Lagos City Transit System by Sustainability Limited, Nigeria<sup>/10/</sup> (page 2). The first CPA component project activity named “Lagos Cable Propelled Transit Project” in the state of Lagos, Nigeria is being validated along with the proposed POA. The proposed POA is promoting more efficient and less carbon intensive transportation in highly populated areas, which is a part of Urban Mass transit policies and programmes<sup>/28/</sup>.

Ropeways Transport Limited, Nigeria is the CME and will be entering into agreement with other project promoters (other CPA Implementers) who want to include their component project activities into the proposed POA. This information, as assessed in Annex 3 of this report, was checked by the assessment team at the time of site visit to the Lagos Component Project Activity. The POA DD mentions the unique title of the POA. The title of the proposed CDM POA “Cable Propelled Mass Transit Projects in Nigeria” has made the project identifiable by unique name. The name of proposed CDM POA was also checked from the UNFCCC website

<http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/13SFZPWFPLHUD007M8OTVGSU0OVOY7/view.html> and it was confirmed that the title of the PoA has not changed since the initial webhosted version.



It is confirmed that the POA-DD was prepared in accordance with the CDM-SSC-PoA-DD-FORM, version 04.0 as available on website [https://cdm.unfccc.int/Reference/PDDs\\_Forms/index.html](https://cdm.unfccc.int/Reference/PDDs_Forms/index.html). This is checked and is found to be appropriate as per paragraph 69 of VVS version 09.0<sup>6.b/</sup>. The final PoA-DD submitted by the CME has been assessed as per the requirement of 266 of VVS version 09.0 and found to be describing the framework developed for the implementation of the proposed CDM PoA, and defining a proposed CDM CPA under the PoA, the policy/measure or stated goal that the proposed CDM PoA seeks to promote and that the proposed CDM PoA is a voluntary action by the coordinating/managing entity.

The start date of the Programme of Activity is considered as 29/10/2013 which is date of POA-DD publication to UNFCCC website for Global Stakeholder Consultation. The appropriateness of the same has been checked and confirmed from Glossary of CDM Terms (CDM-EB07-A04-GLOS), version 08.0 ([http://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20150226124446845/glos\\_CDM.pdf](http://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20150226124446845/glos_CDM.pdf)); hence it is accepted.

The POA-DD Section D.2 has clearly indicated the lifetime of the proposed CDM programme of activity as 28 years in accordance with the CDM project standard (version 09.0), thus the duration of the POA will be 28 years from the start date of the POA i.e. 29/10/2013. This was found in line with the requirement of paragraph 223 of CDM Project Standard version 09.0 and paragraph 280 of VVS version 09.0, thus accepted.

The table for mentioning the project participant has been correctly mentioned in the final POA-DD<sup>1/</sup>, in section A.4., which is as per the requirement of VVS<sup>6.b/</sup>, version 09.0, Para 53. The proposed CDM POA is located in the Federal Republic of Nigeria, which was confirmed by undertaking a validation site visit by the assessment team. It was concluded that the project meets the relevant CDM requirements and POA DD was checked against the forms and guidance mentioned on UNFCCC website.

The changes made from the webhosted POA DD to the final POA DD are summarized as below;

<b>Main changes and reason for revision between the final POA-DD against the first version published for the international stakeholder consultation</b>	
<b>POA-DD</b>	<b>Description and reason for changing the information in that section</b>
POA DD Version 01	Webhosted version
POA DD Version 14	<p>POA-DD has been updated to follow latest CDM-SSC-PoA-DD-FORM, version 04.0</p> <ul style="list-style-type: none"> <li>Section B.1 and Section B.2 (POA DD Part I) have been revised in response to UN incomplete issues through CAR # 1</li> <li>Section B.5 (POA DD Part II) have been revised in response to UN incomplete issues through CAR # 1</li> <li>Section E.3 (PoA-DD Part I) for Environmental Impact Assessment was removed from the POA DD as it was not part of POA DD template through CAR #2.</li> <li>Section F.1 of the PoA-DD (part I) was revised to include justification for carrying out stakeholder consultation at the CPA level through CAR #2.</li> <li>Section B.2 was revised in line with the PoA-DD completion guidelines through CAR #2.</li> <li>Section B.7.1 of the PoA-DD part II was revised with completed the QA/QC procedures sections of the monitoring tables for the parameters "ECPJ" and "Occupancy rate of vehicle category i" through CAR #2.</li> </ul> <ul style="list-style-type: none"> <li>Section A.2 of the PoA-DD (Part I) was mentioned first of its kind nature of the nature of project through CL #3.</li> <li>The name of the CME has been consistently mentioned in the sections of the PoA-DD: Section A.3 (part I); Section A.4 (part I) and Appendix 1 through CL #3.</li> </ul>

Main changes and reason for revision between the final POA-DD against the first version published for the international stakeholder consultation	
	<ul style="list-style-type: none"> <li>• Section B.2 and B.3 (Part II) have been revised through CAR #1</li> <li>• Section B.4 (part II) was revised with appropriate description on pre-project scenario through CAR #4.</li> <li>• Additionality arguments have been revised in Section B.1 of the PoA-DD (part I) through CAR #4.</li> <li>• The eligibility criteria were made consistent between Sections B.2 (part I) and B.5 (part II) of the PoA-DD through CAR #4.</li> <li>• Section B.6.2 , B.6.3 and B.7.1 (Part II) have been revised through CAR #1 for Monitoring parameters and approach of ex ante ER calculations</li> <li>• The CME has referred to “start date of validation of the CPA” under the eligibility criteria point (e) in section B.2 of the PoA-DD (part I) through CAR #4.</li> <li>• The start date of the PoA has been revised to 29/10/2013 in Section D.1 of the PoA-DD (part I) i.e. the date of publication of the PoA-DD for global stakeholder consultation through CAR #4.</li> </ul>
	<p>Sampling plan for the Programme of Activities was included in Appendix of the POA-DD through CAR #5.</p> <ul style="list-style-type: none"> <li>• Section C (Part I) of the PoA-DD defines the roles and responsibilities of the CME in the process of inclusion of a CPA through CAR #6.</li> <li>• Information under the heading “Records of Training and Capacity Development” was revised in Section C (part I) of the PoA-DD through CAR #6.</li> <li>• Paragraph titled “Procedure for technical review of inclusion of CPAs” was included in Section C (Part I) of the PoA-DD through CAR #6.</li> <li>• The PP has now added a paragraph titled “Measures for continuous improvements of the PoA management system” was included in Section C (Part I) of the PoA-DD through CAR #6.</li> </ul>
	<ul style="list-style-type: none"> <li>• Appendix 5 of the PoA-DD mentioned that the survey will be realised as described in the methodology through CAR #7.</li> <li>• Section B.6.3 of the PoA-DD clarifies the power shortage and erratic power supply in Nigeria through CAR #7.</li> <li>• The parameter ‘occupancy rate of vehicle category i’ was defined in section B.7.1 of the PoA-DD through CAR #7.</li> <li>• Sections A.6, B.3, B.6.1, B.6.2, B.6.3, B.7.1 and Appendix 4 have been modified to include clarity on source of electricity for cable car operations and corresponding methodological choice related to Direct Project Emission calculation including emission factor calculation for off-grid power supply through CAR #7.</li> </ul>

The proposed POA neither received any public funding from Annex 1 parties nor diverted ODA for project finance as mentioned in section A.7 of the POA DD<sup>/1/</sup> (Part I). This has been confirmed from the letter of declaration from Ropeways Transport Limited dated 22/10/2013<sup>/14/</sup>. This is found to be appropriate and it is accepted.

The Programme of Activity entitled “Cable Propelled Mass Transit Projects in Nigeria” is a unique title. This has been checked and verified from the UNFCCC

<http://cdm.unfccc.int/ProgrammeOfActivities/Validation/index.html>. The POA DD<sup>/1/</sup> is providing all required information on the purpose of the project activity, the type of technology used and the contribution of the project activity to the sustainable development which has been found to be acceptable.

The final POA-DD submitted by the CME found to be thoroughly describing the framework developed for the implementation of the proposed CDM PoA and has well defined a proposed generic CDM CPA under the PoA.

The programme of activity description in the final PoA-DD<sup>/1/</sup> has clearly demonstrated the measure that the proposed CDM PoA seeks to promote and that the proposed CDM PoA is a voluntary action by the CME.

Therefore based on the above details and observation made during validation site visit, as per the requirement of paragraph 71 of VVS version 09.0, the assessment team confirms that the description of the proposed CDM programme of activity in the final POA-DD is accurate, complete, and provides an understanding of the proposed CDM project activity.

As the part of the POA-DD, a generic CPA-DD has been prepared by the CME describing technology/measure involved in the proposed CDM programme of activity. The proposed programme of activity does not involve combination of different technology/measure, thus the specific requirement as per paragraph 269-270 of CDM VVS ver. 09.0 and paragraph 208 of CDM Project Standard is not applicable herein this case.

### **Validation Opinion:**

The final POA DD<sup>/1/</sup> satisfies the requirements of paragraphs 71 and 266 of VVS<sup>/6.b/</sup> version 09.0. The final POA DD<sup>/1/</sup> used as a basis for validation has been prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website. The final POA-DD<sup>/1/</sup> contains a clear description of the project activity that provides a clear understanding of the precise nature of the project activity. This description was found to be accurate and complete. The information as mentioned in the POA DD was also confirmed by the assessment team during the site visit process. All details have been consistently mentioned throughout the final POA DD<sup>/1/</sup>.

### **Discussion of CAR/CLs:**

**CL#3** was raised to ask PP to clarify below points;

1. Section A.2 of the PoA-DD (Part I) states that “Also if implemented it will be first such urban cable car project in Africa...” During the initial presentation on the project by the CME, it was mentioned that there is already a cable car project existing in Algeria.
2. Name of the CME was found inconsistent between the following sections of the PoA-DD: Section A.3 (part I); Section A.4 (part I) and Appendix 1.
3. Section B.3 (Part I) of the PoA-DD mentions that the applied methodology is AMS.III-U and it also gives reference to “AMS.I-C (when applicable)”.

In response, PP submitted revised POA DD<sup>/1/</sup> with statement in section A.2 corrected as “Also if implemented it will be first such urban cable car project in West Africa...”. Also name of CMP was consistently mentioned throughout the POA-DD and reference of methodology AMS-I.C removed from section B.3 (Part-I). This is found to be appropriate and it is accepted; thus **CL #3** was closed out.

**CAR #4** (issues 4 and 5) were raised to ask PP to clarify below points;

1. The CME has referred to “start date of validation of the PoA” under the eligibility criteria point (e) in section B.2 of the PoA-DD (part I).
2. The start date of the PoA has been mentioned as 01/01/2015 in Section D.1 of the PoA-DD (part I). As per the guidelines for completing the PoA-DD “Describe how the start date was determined” – this detail is not present in this section.



In response, PP submitted revised POA DD with “start date” mentioned under eligibility criteria points (e) in section B.2 (part 1) and justification on selection of start date in section D.1 (Part I) of POA DD. This is found to be appropriate and it is accepted. Thus CAR #4 (issues 4 and 5) were closed out.

The detailed discussion on above CAR/CL can be referred in Annex 3 of this validation report.

#### Validation Opinion:

The final POA DD<sup>/1/</sup> satisfies the requirements of paragraphs 71 and 266 of VVS<sup>/6.b/</sup> version 09.0. The final POA DD<sup>/1/</sup> used as a basis for validation has been prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website. The final POA-DD<sup>/1/</sup> contains a clear description of the project activity that provides a clear understanding of the precise nature of the project activity. This description was found to be accurate and complete. The information as mentioned in the POA DD was also confirmed by the assessment team during the site visit process. All details have been consistently mentioned throughout the final POA DD<sup>/1/</sup>.

#### 4.5 Criteria for inclusion of Component Project Activities

The POA-DD established clear eligibility criteria for inclusion of each CPA under the POA, which needs to be met by each CPA. The coordinating/managing entity applies clear and unambiguous criteria for the inclusion of the CPA. The eligibility criteria's stated are verifiable with regards to the applicability of the applied methodology AMS-III.U, version 1.0 geographical boundary, technology used to the CPA, double counting and the host country's regulations. The eligibility criteria will be checked at the CPA level by the managing entity and will be confirmed by the DOE during CPA inclusion. The eligibility criteria have been set as depicted below;

Eligibility criteria as set in the POA DD	Assessment of Eligibility criteria as mentioned in the POA-DD section B.2
(a) The CPA is within the territorial boundaries of Nigeria	Validation team would check whether proposed CPA is within territorial boundaries of Nigeria during on-site visit to respective CPA.
(b) The CPA must have a unique identification of the proposed project activity to avoid double counting.	In the CPA, this is confirmed by the GPS coordinates of the project and Unique Identification Number (UIN) assigned to the particular CPA by the CME.
(c) The CPA technology is that of cable propelled transit	Assessment team will check and confirm this eligibility criterion from engineering documentation of respective CPA.  For LCCT project (1 <sup>st</sup> specific CPA), CPA technology was validated from documentary evidence, Lagos Cable Transit Project Traffic Advisor dated October 2012 <sup>/15/</sup> . The assessment team also confirms the technical specifications with regard to the type of ropeway that will be used (in this case aerial rope transit (ART)), the design-cabins, towers, terminals/stations and ropes (mono,bi, tri or more) and the capacity ranges from 2-1000 persons per cabin.
(d) Start date conforms to Project Standard requirements.	Assessment team had validated that fact that no Cable Car project exists in Nigeria from publically available sources (E.g. <a href="http://africaisdonesuffering.com/2013/12/cable-cars-in-lagos-state-nigeria/">http://africaisdonesuffering.com/2013/12/cable-cars-in-lagos-state-nigeria/</a> ). Hence, the start date of all the CPA would be after the start date of the POA. The assessment team will check the evidence of either implementation, construction or

	<p>real action for each CPA, as per definition of start date of CPA as per Glossary of CDM Terms (CDM-EB07-A04-GLOS), version 08.0 (<a href="http://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20150226124446845/glos_CDM.pdf">http://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20150226124446845/glos_CDM.pdf</a>).</p> <p>For LCCT project (1<sup>st</sup> specific CPA), the start date of CPA is 01/01/2015 as per the project implementation schedule<sup>/11/</sup> submitted by PP and after the POA start date.</p>
(e) All the applicability criteria in the AMSIII.U methodology are met	<p>Assessment team will check applicability of methodology to the CPA at the time of inclusion of each CPA to the proposed POA.</p> <p>For the first CPA, PP justified applicability criteria of the applied methodology in section D.2 of the CPA DD and it is validated by assessment team. The Means of validation are described in the separate CPA validation report.</p>
<p>(f) The CPA shall clearly demonstrate its additionality to be eligible for inclusion under the PoA in line with the Guidelines Methodological tool on the demonstration of additionality of small scale project activities (version 10):</p> <ul style="list-style-type: none"> <li>• Investment barrier</li> <li>• Technological barrier</li> <li>• Barrier due to prevailing practice</li> <li>• Other barriers</li> </ul>	<p>As the eligibility criteria individual CPA to be included in the proposed POA shall be demonstrating their respective additionality as per the provision of Methodological tool on the demonstration of additionality of small scale project activities (version 10) taking into consideration the Guidelines for objective demonstration and assessment of barriers (version 01).</p> <p>Assessment team had validated the additionality for the LCCT project (1<sup>st</sup> specific CPA). The Means of validation are described in the separate CPA validation report.</p>
(g) EIA and local Stakeholder Consultations requirements by the Nigerian government must be respected. The Monitoring approval of the CPA by CME, inclusion of CPA and CER right transfer should be duly considered for this project activity..	<p>The assessment team will check all the necessary documentation at the time of inclusion of each CPA to the proposed POA.</p> <p>For LCCT project (1<sup>st</sup> specific CPA), assessment team had checked the Environmental and Social Impact Assessment Studies of the proposed LCCT system of Ropeways Transport Limited, prepared by Sustainability Limited dated November 2012<sup>/16/</sup> and concluded that the CPA is in line with Nigerian government's EIA and Stakeholder consultation requirements.</p>
(h) Any Annex 1 Donor Funding will be disclosed by the CPA project developer	<p>The assessment team will check the involvement of Annex 1 Donor funding in the CPA at the time of inclusion of each CPA.</p> <p>For LCCT project (1<sup>st</sup> specific CPA), it is checked and confirmed from the self declaration from Ropeways Transport Limited<sup>/14/</sup>.</p>
(i) CME shall specify the target group of the project activity (rural/urban).	<p>The assessment team will check the specification of the target group in the CPA at the time of inclusion of each CPA.</p>
(j) Sampling used in the CPA for	<p>It is confirmed that individual CPA, will follow the sampling</p>

passenger survey shall conform to “Standard for sampling and surveys for CDM project activities and programme of activities” the See details in Appendix 5.	protocol as per the requirement of Standard for sampling and surveys for CDM project activities and programme of activities and passenger survey template as included in the POA DD in appendix 5 and same would be checked for each CPA.
(k) CPA must show that Small scale limit is not exceeded. Also, where applicable, it must ensure that every CPA (in aggregate if it comprises of independent sub units) meets the small-scale or microscale threshold and remains within those thresholds throughout the crediting period of the CPA.	<p>Assessment team for the CPA inclusion would check the scale of the project during assessment each CPA.</p> <p>For LCCT project (1<sup>st</sup> specific CPA) it is confirmed that the scale of the project is within small scale limit for CPA. This was checked for Type III projects with emission reductions being less than 60kt of CO<sub>2</sub>.</p>
(l) A CPA shall not be a debundled component of a large scale project activity in accordance to the “Methodological tool on assessment of debundling for SSC project activities” clause 5.3.	<p>Debundling nature of each CPA will be checked in accordance to the criteria set under “Methodological tool on assessment of debundling for SSC project activities” clause 5.3.</p> <p>For LCCT project (1<sup>st</sup> specific CPA), it is confirmed from publically available sources (E.g. <a href="http://africaisdonesuffering.com/2013/12/cable-cars-in-lagos-state-nigeria/">http://africaisdonesuffering.com/2013/12/cable-cars-in-lagos-state-nigeria/</a>)<sup>/26/</sup> that no other Cable Car project exists in Nigeria which qualifies the requirement of paragraph 15 of Methodological tool on assessment of debundling for SSC project activities, version 04.0.</p>

All the above eligibility criteria for inclusion of CPA as stated were found to be objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA and those will be verifiable for each CPA. The eligibility criteria should be demonstrated at the CPA level by the can by the managing entity and shall be confirmed by the DOE during CPA inclusion.

All eligibility criteria set in the final POA-DD were found to be in-line with the paragraph 18 (a) to (l) of Standard: Demonstration of additionality, development of eligibility criteria and applications of multiple methodologies for programme of activities (CDM-EB65-A03-STAN), Version 04.0<sup>/27/</sup>, also thus the requirement of paragraph 276 of VVS, version 09.0 has also been met.

The validation team confirms that the CME has competencies to check the features of potential CPAs of POA which was checked with the CME manual provided by the CME and was found to be in concurrence with the eligibility criteria of the CPA inclusions and also have competency to check that each CPA meets all requirements and eligibility criteria before submission to the DOE for the inclusion.

Based on above assessment, validation team confirms the compliance of paragraphs 18 to 20 of Standard, “Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities”, version 04.0<sup>/27/</sup>.

### Validation Opinion:

The assessment team is of the opinion that the CME has correctly identified all the eligibility criteria as per the standard “Demonstration of additionality, development of eligibility criteria and application of multiple

methodologies for programmes of activities”, Version 04.0<sup>/27/</sup>. This was validated as per para 276 of VVS version 09.0.

#### Discussion of CAR/CLs:

**CAR #2** (issue 2) was raised as section B.2 (part II) of the PoA-DD mentions the eligibility criteria for the inclusion of the CPA in the PoA and it was found inconsistent with the PoA-DD completion guidelines. In response, PP submitted revised POA DD<sup>/1/</sup> with mentions the eligibility criteria for the inclusion of the CPA in the PoA deleted from section B.2 (part II); hence it was accepted. Thus CAR #2 (issue 2) was closed out.

**CAR #4** (issue 3) was raised as the eligibility criteria are inconsistent between sections B.2 (part I) and B.5 (part II) of the PoA-DD. In response, the PP submitted a revised POA DD with eligibility criteria consistently mentioned in sections B.2 (part I) and B.5 (part II). This is found to be appropriate and it is accepted. Thus CAR #4 (issue 3) was closed out.

With regard to the points associated to UNFCCC Information and Reporting Check Incomplete comments related to eligibility criteria for inclusion of CPA please refer the discussion on **CAR #1** at the end of Section 4.1 above in this report.

The detailed discussion trail on above CARs can be referred in Annex 3 of this validation report.

#### 4.6 Applicability of selected methodology to the Programme of Activity

The proposed CDM programme of activity has adopted the approved small scale methodology AMS- III.U., version 1.0. With regards to the requirement of paragraph 78 and 81 of VVS version 09.0 this is confirmed that following version 1.0 of applied methodology AMS-III.U was valid from 26/09/2008 to 23/07/2015 and requests for registration can be submitted until 19/03/2016 23:59:59 GMT, thus accepted.

As per the requirement of paragraph 80 of VVS version 09.0, the application of all provisions as per the applied methodology to the proposed CDM project activity has been assessed and it has been found that AMS-III.U., version 1.0 has been correctly applied in entirety with respect to the project boundary, baseline identification; algorithms and/or formulae used to determine emission reductions; additionality and monitoring methodology.

The POA confirms to the requisite applicability criteria of AMS-III.U., version 01<sup>/7/</sup>, under sectoral scope 7 (Transport) and justification for the applicability criteria has been mentioned clearly in the POA DD<sup>/1/</sup>. This POA will support the small scale projects, whose total estimated emission reductions are less than 60,000 tCO<sub>2</sub>e for each CPA to the proposed POA.

The assessment of the applicability criteria of the applied methodology AMS-III.U, version 01, has been assessed as depicted below;

Applicability Conditions as per AMS-III.U, Version 01	How the eligibility is met as mentioned in POA DD
(a) A new cable car is built. Extensions of existing cable car routes are not eligible.	Only newly built cable car will be part of POA DD. Extension of existing cable route is not applicable for the proposed POA. It is confirmed from publically available sources that no other Cable Car project exists in Nigeria. Since this is first project in Nigeria.
(b) Cable cars are only for passenger transport; the passenger performs partial or total trip on the cable car.	It would be checked for each CPA from Project documentation submitted for respective CPA.  For LCCT project (1 <sup>st</sup> specific CPA), it is checked and confirmed from “Lagos Cable Transit Project Traffic Advisor <sup>/15/</sup> ”.
(c) Cable cars are established as a means of mass transit. The cable car must be built in an area that is accessible by road (origin and final destination of the	It would be checked for each CPA from the Project documentation submitted for the respective CPA.  For LCCT project (1 <sup>st</sup> specific CPA), it is confirmed that the lines on the CPA to be implemented in Lagos are all

Applicability Conditions as per AMS-III.U, Version 01	How the eligibility is met as mentioned in POA DD
cable car).	accessible as they are all integrated into the existing roads network in Lagos and it is evident from "Lagos Cable Transit Project Traffic Advisor" <sup>15/</sup> .
(d) The methodology is applicable if fuels used in the baseline and or project case are electricity, gaseous or liquid fossil fuels. If Bio fuel blends are used as liquid fuels, the specific fuel consumption value and emission factors used for determining baseline and project emissions shall be adjusted accordingly.	It would be checked for each CPA from the Project documentation submitted for respective CPA.  For LCCT project (1 <sup>st</sup> specific CPA), it is confirmed that the types of fuel used in the baseline and project case are electricity and/or liquid fossil fuels as confirmed during on site visit through interview with PP to Lagos CPA and it is further crosschecked from "Lagos Cable Transit Project Traffic Advisor" <sup>15/</sup> .
(e) The methodology is applicable if the analysis of possible baseline scenario alternatives leads to the result that a continuation of the current public transport system is the scenario that reasonably represents the anthropogenic emissions by sources of greenhouse gases (GHG) that would occur in the absence of the proposed project activity (i.e. the baseline scenario).	This condition will be checked during inclusion of each CPA through on-site visit.  The baseline scenario for the CPA of the Cable Car in Lagos is the continuation of the usage of passenger cars and transit buses which is practice in Lagos, as the CPA is yet to be implemented. This is confirmed at the time of on-site visit to Lagos CPA.
(f) Measures are limited to those that result in emission reductions of less than or equal to 60 kt CO <sub>2</sub> e annually	This condition will be checked for each CPA to be included in the proposed POA.  The estimated emission reductions from the LCCT project (1 <sup>st</sup> specific CPA) are less than 60kt CO <sub>2</sub> e. This is checked from the emission reduction spreadsheet and was found to be within the threshold.

All the applicability criteria of AMS-III.U, version 01 were checked with respect to the prevailing situation of the POA. The POA as a whole has met all the applicability criteria of AMS-III.U, version 01, however, as the criteria are specific to a project activity, all the applicability criteria will be separately checked and assessed for individual CPA, during CPA inclusion process, along with all the documentary evidences for each criteria under the methodology, specific to a CPA. A CPA will be a part of this POA, only if it can satisfy all the applicability criteria of AMS-III.U, version 01 along with other eligibility criteria as defined in section B.2 of part I of POA DD and in section B.5 of part II of the POA DD.

#### Validation Opinion:

As per the requirements of paragraphs 81-82 and 85 of VVS version 09.0 and based on the above discussion, that validation team confirms that the POA meets all the applicability conditions and all other stipulations of the selected methodology AMS-III.U, Version 01. However the applicability criteria will further be validated for each CPA during CPA inclusion process.

#### 4.7 Operational, management and verification plan

Ropeways Transport Limited will coordinate the POA and will support the project developers in implementing the Component Project Activities (CPAs) in Federal Republic of Nigeria while acting as the focal point for all CDM related activities. This was confirmed by the assessment team during the validation site visit based on



ownership of the CPA and found to be consistent and thus accepted. Also this was found to be consistently mentioned in the CME Manual for the POA and was thus accepted.

The CME has developed teams for the operation, management and verification of the POA as detailed in section C: Management system, under part-I of the POA DD<sup>/1/</sup>. The CME has clearly defined roles and responsibilities of the personnel involved in the complete process. Ropeways Transport Limited as the CME will use a management system to ensure all CPA Implementers under the PoA implement, operate, and monitor their respective CPAs. The roles and responsibilities of the CME and CPA are clearly distinguished in below table;

<b>Roles and Responsibilities of the CME</b>	<b>Roles and Responsibilities of the CPA</b>
Approval of CPAs	Submit CPA DD form to the CME
Overall data collection and collation of the various CPAs	Collection and quality control of data
Quality control of monitoring and avoidance of double counting	Training and Capacity building
Submit monitoring report to the DOE	Submit monitoring report to the CME
Assign CERs to the CPAs	Calculation of CERs based on the methodology

By reviewing this management system procedure mentioned in the POA-DD, the validation team confirms that the CME have the competencies to check the features of potential CPAs and can ensure that each CPA meets all requirements and eligibility criteria before inclusion in the registered POA.

Based on above assessment, the validation team confirms that the management system of CME is in line with the requirement of paragraph 21 standard "Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities", Version 04.0<sup>/27/</sup>. This also complies with the requirement of paragraph 271 of VVS version 09.0.

#### **4.8 Programme of Activity Boundary**

As per paragraphs 5 and 6 of the applied methodology, AMS-III.U version 01, project boundary requirements are as below;

*5. The spatial extent of the project boundary is the geographical area of trips of passengers using the cable car.*

*6. If electricity is sourced from an interconnected grid for the operation of the transport system, the project boundary also includes the power plants physically connected to the grid supplying power to the project. In this regard the guidance in "Tool to calculate baseline, project and/or leakage emissions from electricity consumption" shall be followed.*

The POA will be implemented within the geographical boundary of Federal Republic of Nigeria as the trips of passengers using cable car is limited to geographical boundary of Nigeria only. This was checked for LCCT project (1<sup>st</sup> specific CPA) during validation site visit to Lagos, Nigeria and this aspect will be checked for each CPA during CPA inclusion process as a part of eligibility criteria assessment, as defined in section B.2 of the part I of POA DD. The geo-graphical boundary of Nigeria also includes the power plants physically connected to the grid supplying power to the project and the off-grid (captive) generators connected to the project activity.

#### **Validation Opinion**

The validation team is of the opinion that the POA boundary has been correctly identified in the POA DD<sup>/1/</sup>. During validation site visit, assessment of the proposed POA boundary was carried out as per paragraphs 267-268 of VVS<sup>/6.b/</sup> version 09.0 respectively and was found to be in line with the requirement.

## 4.9 Baseline Selection and Additionality

CME has demonstrated the most plausible baseline scenario as per the definition provided under the applied methodology AMS-III.U version 1.0 and the additionality has demonstrated as per the provision of paragraph 10 of Standard “Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities”, Version 04.0<sup>/27/</sup>.

### 4.9.1 Additionality of Programme of Activity

As per the requirement of the paragraph 10 of Standard “Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities”, Version 04.0<sup>/27/</sup>, under the POA-DD, CME has defined the additionality demonstration framework criteria at CPA level which required to be fulfilled by the individual CPAs to be included for demonstration of their corresponding additionality.

The CME has defined the additionality criteria as per paragraph 10 of the Methodological Tool: Demonstration of additionality of small scale project activities, Version 10.0<sup>/5/</sup> which would allow CME to use any of the below four options to demonstrate additionality at individual CPA level;

- (a) **Investment barrier:** *a financially more viable alternative to the project activity would have led to higher emissions;*
- (b) **Technological barrier:** *a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertainty or low market share of the new technology adopted for the project activity and so would have led to higher emissions;*
- (c) **Barrier due to prevailing practice:** *prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions;*
- (d) **Other barriers:** *without the project activity, for another specific reason identified by the project participant, such as institutional barriers or limited information, managerial resources, organizational capacity, financial resources, or capacity to absorb new technologies, emissions would have been higher.*

### 4.9.2 Additionality of Generic CPA

As per the framework defined under POA-DD, the additionality of the individual CPAs to be included in the proposed programme of activity “Cable Propelled Mass Transit system” shall be required to demonstrate their respective additionality in compliance with paragraph 10 of Methodological Tool: Demonstration of additionality of small scale project activities, Version 10.0<sup>/5/</sup> with respect to at least one of the barriers listed therein the Tool.

### 4.9.3 Identification of alternatives (if applicable)

As per applied simplified methodology AMSIII.U, version 1.0, the plausible baseline scenarios are defined as following:

- the continued usage of transit buses in densely populated areas of Nigeria or
- the proposed Programme of Activity without any CDM benefits.

The baseline selected for the proposed programme of activity was the continuation of the usage of passenger cars and transit buses (known as Danfo/ Molue). The existing railway system in Lagos only caters 0.1% of the passenger movements every day.

Apart from transit buses, passenger cars and motor cycles are another mode of passenger movements which are causing 50% of the greenhouse gas emissions in Nigeria.

The appropriateness of the same is checked and confirmed from publically available sources Challenges of Transportation in Lagos, prepared by Lagos Metropolitan Area Transport Authority (LAMATA)<sup>/17/</sup> [http://www.unep.org/transport/pcf/PDF/cba\\_june/CBA\\_PublicTransportationLagos.pdf](http://www.unep.org/transport/pcf/PDF/cba_june/CBA_PublicTransportationLagos.pdf).

Therefore it has been accepted that in absence of the proposed POA, the public transportation system of Lagos, Nigeria would be involving the continued operation of prevailing usage of passenger cars and transit buses (known as Danfo/ Molue). This fact has been duly validated based the local knowledge of the assessment team.

The procedure contained in the applied simplified methodology AMS-III.U version 1.0 to identify the most reasonable baseline scenario has been correctly applied and the baseline identified for the proposed CDM PoA is the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the PoA.

#### **4.9.4 Investment analysis (if applicable)**

CME has defined the additionality demonstration framework at individual CPA level as per the requirement of paragraph 10 of Standard “Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities”, Version 04.0<sup>(27/)</sup>.

#### **4.9.5 Barrier analysis (if applicable)**

CME has defined the additionality demonstration framework at individual CPA level as per the requirement of paragraph 10 of Standard “Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities”, Version 04.0<sup>(27/)</sup>.

#### **4.9.6 Common practice analysis**

The proposed programme of activity will consists of one of more small-scale projects as CPAs and adopted simplified methodology AMSIII.U, version 01. The additionality will be demonstrated at individual CPA level as per the requirement of paragraph 10 of Methodological Tool: Demonstration of additionality of small scale project activities, Version 10.0<sup>(5/)</sup>, thus separate demonstration of common practice analysis is not applicable herein case.

### **Discussion of CAR/CLs:**

**CAR #4** (issues 1 and 2) were raised to ask PP to clarify the below points;

1. The CME has identified the baseline scenario in Section B.4 (part II) of the PoA-DD as the use of small and medium sized buses using diesel and gas for fuels. It was not clear how paragraph 8, of the methodology was satisfied in determining the baseline scenario, which states “The baseline is determined by assessing alternatives to public transport in the project region including inter alia a continuation of the current situation and the project realized without the CDM.”
2. Additionality has been demonstrated in Section B.1 of the PoA-DD (part I) using the “technological barrier” option i.e. paragraph 1(b) of the guidelines for the demonstration of additionality of SSC project activities. However it is not clear how the additionality arguments satisfy the requirements of the paragraph 1(b) of the guidelines.

In response, PP submitted revised POA DD<sup>(1/)</sup> with appropriate justification included in section B.4 (part II) of the POA DD of the use of small and medium sized buses using diesel and gasoline for fuels as baseline scenario for the proposed project activity. Thus CAR #4 (issues 1) were closed out.

**CAR #4** (issue 2) was further extended as a result of comments raised during UN Information & Reporting Check and this CAR was reopened due the following points:

1. CME was requested to justify the appropriateness of demonstration of additionality at POA level through selected barrier ‘technology barrier’ in line with clause 3.1 of EB 74 Annex 5, since ‘technology barrier’ may depends on various factors such as ‘location of project implementation in host country’, ‘penetration of the technology in the host country’ and in particular ‘time of the implementation of the project activity’ considering the PoA duration of 28 years.



2. CME was requested to provide further information on applicability of the technology barrier as per paragraph 4 of EB 50 Annex 13; in doing so, the information on nature of company, organization and its ownership, and previous experience with similar project in other locations was requested to be provided in the CPA DDs.

In response to the reopened CAR #4, CME has revised the POA-DD and re-defined the additionality demonstration approach at individual CPA level with regard to the framework designed under the POA. The final revised POA-DD and CPA-DD was assessed and the commented points were found to be resolved in the following manner:

1. Section B.1 of the revised POA-DD was reviewed and it was found that in response to the findings, the CME has withdrawn the description of additionality demonstration aspect at the POA level and in place the new description has been added on additionality demonstration criteria for the CPA to be included for demonstration of additionality at individual CPA level. The additionality demonstration criteria for individual CPA was found to be defined in line with the requirement of paragraph 10 of Standard: Demonstration of additionality, development of eligibility criteria and applications of multiple methodologies for programme of activities (CDM-EB65-A03-STAN), Version 04.0 (EB87 Annex 03) and accordingly individual CPAs to be included in the proposed POA has to demonstrate additionality in compliance with paragraph 10 of Methodological Tool: Demonstration of additionality of small scale project activities (TOOL21), Version 10.0 (EB83 Annex 14) with respect to at least one of the barriers listed therein the Tool. This was found justified and hence accepted.
2. Since the description on the additionality description at the POA level has been withdrawn from the revised POA-DD, thus the description on additionality demonstration in the revised CPA-DD section D.5 as per Technological Barrier was reviewed. It was found that the requisite information on applicability of the technology barrier such as the information on nature of company, organization and its ownership, and their previous experience with similar project in other locations etc. involved in the proposed CPA implementation has been duly included in the CPA-DD as per the requirement of paragraph 4 of EB 50 Annex 13. Thus accepted.

Therefore the final POA-DD and CPA-DD was found to be justifying all the commented points with regard to the above re-opened issues and hence CAR #1 was closed out.

The detailed discussion trail on above CAR #4 can be referred in section A.3 of this validation report.

#### **Validation Opinion:**

It has been concluded that the procedure contained in the applied methodology AMS-III.U version 1.0 to identify the most reasonable baseline scenario has been correctly applied and reasonably represents what would occur in the absence of the proposed CDM project activity. The requirement of para 97, 99-103 of VVS, version 09.0 was met by the POA.

The demonstration of additionality was validated as per paragraph 278 of VVS, Version 09.0 and found to be in line with the provision of Standard "Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities", Version 04.0<sup>27/</sup>, paragraph 10.

#### **4.10 Application of Baseline Methodology and Calculation of Emission Factors**

The proposed CDM POA has appropriately adopted the methodology AMS-III.U, version 01. This POA includes CPAs that implement Cable Propelled Mass Transit system in densely populated areas of the host country Nigeria. As per paragraph 9 of the applied methodology, the PP has to determine baseline emissions per passenger-kilometre (PKM) ex-ante at the inclusion of each CPA to be included in the proposed POA and the project emissions per PKM will be monitored ex-post during the verification period of respective CPAs. Baseline emissions are calculated based on the number of project passengers, the baseline emission factor per PKM, and the trip distance on the respective modes. It is assumed that the passengers do not

change origin and destination of their trip and it includes the baseline emissions include total trip emissions of project passengers from their trip origin to their trip destination.

The assessment of the applicability criteria of the methodology AMS-III.U version 1.0 has been done under section 4.6 of this report. Thus the methodology AMS-III.U version 1.0 has been correctly used for the identification of baseline and also for calculation of emission factor. The detailed procedure applied for the calculation of baseline emission, project emission and leakage emission are depicted below;

### **Baseline Emissions:**

As discussed in section 4.9 of this validation report, in absence of the proposed project activity, passenger movement through passenger cars and transit buses would have been continued. Thus as per paragraph 12 of the applied methodology AMS-III.U version 01<sup>[7]</sup>, emission factor per km per vehicle category will be calculated ex-ante at the time of inclusion of each CPA and it will be applicable for CPA first crediting period with the application of technology improvement factor every year. It will be renewed at the start of each crediting period.

### **Emission factor per kilometre per vehicle category**

$$EF_{KM,i} = \sum_x \left[ SFC_{x,i} \times NCV_x \times EF_{CO_2,x} \times \frac{N_{x,i}}{N_i} \right] \times IR_i^t \quad (\text{Equation 1, AMS-III.U., Version 01})$$

Where:

$EF_{KM,i}$	Emission factor per kilometre of vehicle category $i$ (grCO <sub>2</sub> /km)
$SFC_{x,i}$	Specific fuel consumption of vehicle category $i$ using fuel type $x$ prior project start (gr/km)
$NCV_x$	Net calorific value of fuel $x$ (J/gr)
$EF_{CO_2,x}$	Carbon emission factor for fuel type $x$ (grCO <sub>2</sub> /J)
$N_{x,i}$	Number of vehicles of category $i$ using fuel type $x$ prior project start (units)
$N_i$	Number of vehicles of category $i$ prior project start (units)
$IR_i^t$	Technology improvement factor for the vehicle of category $i$ per year $t$ . The improvement rate is applied to each calendar year. The default value of the technology improvement factor for all vehicle categories is fixed as 0.99
$t$	Year counter for the annual improvement (dependent on age of data per vehicle category)

As per paragraph 16 of applied methodology<sup>[7]</sup>, under section B.6.2 of the POA-DD the CME has defined the choice for source of data for the ex-ante fixed parameter “*Specific fuel consumed by Passenger car/Taxi and Small buses of fuel type gasoline and Big buses of fuel type diesel*” in the decreasing order of preference as:

1. alternative 1: Local measured data not elder than 3 years (studies e.g. conducted by the project proponent or conducted by reputed institutions including relevant department of Universities);
2. alternative 2: National or international data from studies not elder than 3 years;
3. alternative 3: IPCC default values for the respective vehicle categories (latest year).

During subsequent CPA inclusion, the CME will evaluate any of these three alternatives for specific fuel consumption data. The emissions per passenger for each vehicle category are determined as per the below guidance.

### Emission factor per passenger-kilometre per vehicle category:

$$EF_{PKM,i} = \frac{EF_{KM,i}}{OC_i} \quad (\text{Equation 2, AMS-III.U., Version 01})$$

Where:

$EF_{PKM,i}$  Emission factor per passenger-kilometre of vehicle category  $i$  (grCO<sub>2</sub>/PKM)

$EF_{KM,i}$  Emission factor per kilometre of vehicle category  $i$  (grCO<sub>2</sub>/km)

$OC_i$  Average occupation rate of vehicle category  $i$  prior project start (passengers)\*

All data used is determined ex-ante. A change in the average occupancy rate of the identified vehicles will be treated as leakage of the project.

The total emissions are calculated as;

### Total Baseline Emissions:

$$BE_y = \frac{\sum_s \sum_i P_{BL,i,s,y} \times TD_{BL,i,s,y} \times EF_{PKM,i}}{10^6} \quad (\text{Equation 3, AMS-III.U., Version 01})$$

Where:

$BE_y$  Baseline emissions in the year  $y$  (tCO<sub>2</sub>e)

$P_{BL,i,s,y}$  Passengers transported by the project in the quarter  $s$  of the year  $y$  who would have used mode  $i$  in the baseline (passengers)

$TD_{BL,i,s,y}$  Average trip distance of passengers who would have used mode  $i$  in the baseline in the quarter  $s$  of the year  $y$  (kilometer)

$EF_{PKM,i}$  Emission factor per passenger-kilometre of vehicle category  $i$  (grCO<sub>2</sub>/PKM)

$\sum_s$  Sum of the four (4) surveys realized

As per paragraph 19 of the applied methodology AMS-III.U version 1.0, quarterly surveys will be carried out to capture seasonal effects of passenger transport. Also these surveys would confirm the appropriateness of baseline selected for the project activity as it identifies how project passengers would have made the trip in the absence of the project i.e. what mode(s) of transport they would have used over the distances to reach their trip destination. It would also indicate if there is any change in trip distance assumed in baseline emission calculations. Average trip distance will be calculated for each mode of transport for each survey.

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\* In the case of taxis, the driver is excluded.

### Baseline Passengers per Mode:

$$P_{BL,i,s,y} = P_{s,y} \times SP_{BL,i,s,y} \quad (\text{Equation 4, AMS-III.U., Version 01})$$

Where:

$P_{BL,i,s,y}$	Passengers transported by the project in the quarter $s$ of the year $y$ who would have used mode $i$ in the baseline (passengers)
$P_{s,y}$	Passengers transported by the project in the quarter $s$ of the year $y$ (passengers)
$SP_{BL,i,s,y}$	Share of passengers transported by the project in the quarter $s$ of the year $y$ who would have used mode $i$ in the baseline (%)

### Project Activity Emissions:

As per paragraph 22 of the applied methodology<sup>7/</sup>, the project emissions are calculated based on fuel and/or electricity consumed by project and respective emission factor. There are two components of the project activity emissions are involved i.e. direct and indirect.

**Direct Project Emissions:** are based on the electricity consumption of the cable car and the methodological choice to calculate the direct project emissions has been defined as per the procedures of “Tool to calculate baseline, project and/or leakage emissions from electricity consumption”<sup>8/</sup>, this was found in line with the paragraph 23 of the applied methodology<sup>7/</sup>.

It has been identified that the source of electricity for the operations of the cable cars has been restricted to off-grid supply (generators) to ensure uninterrupted operations of cable car system and to avoid an uncertainty due to the unreliability of the power supply from the grid system of Nigeria.

The methodological choice for calculation of direct project emissions has been found to be appropriately adopted as per the generic approach defined under paragraph 16 and equation 1 of “Tool to calculate baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation” Version 02.

The calculation algorithm for direct project emissions from consumption of electricity has been defined based on the quantity of electricity consumed, an emission factor for electricity generation and a factor to account for transmission losses, as follows:

$$PE_{EC,y} = \sum_j EC_{PJ,j,y} \times EF_{EF,j,y} \times (1 + TDL_{j,y}) \quad (\text{as per Equation 1 of the Tool})$$

Where,

$PE_{EC,y}$	Project emissions from electricity consumption in year $y$ (tCO <sub>2</sub> /yr)
$EC_{PJ,j,y}$	Quantity of electricity consumed by the project electricity consumption source $j$ in year $y$ (MWh/yr)
$EF_{EF,j,y}$	Emission factor for electricity generation for source $j$ in year $y$ (tCO <sub>2</sub> /MWh)
$TDL_{j,y}$	Average technical transmission and distribution losses for providing electricity to source $j$ in year $y$

Since the captive power plant shall be sited at the point of consumption; close to the cable car hence the transmission and distribution losses has been considered to be zero ( $TDL_{j,y} = 0$ ).

The methodological choice for determining emission factor for electricity generation for source, has been found to be appropriately adopted in line with the paragraph 23 and equation 4 of “Tool to calculate baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation” Version 02.

$$EF_{EL,d,y} = \frac{\sum_i FC_{d,i,y} \times NCV_{i,y} \times EF_{CO_2,i,y}}{EG_{d,y}} \quad (\text{as per Equation 4 of the Tool})$$

Where,

$EF_{EL,d,y}$	Emission factor for electricity generation at plant $d$ in year $y$ (tCO <sub>2</sub> /MWh)
$FC_{d,i,y}$	Quantity of fossil fuel type $i$ fired in the captive power plant at project plant $d$ in year $y$ (mass or volume unit) which at the submission of the PoA DD was based on preliminary specifications of the generators to be used
$NCV_{i,y}$	Average net calorific value of fossil fuel type $i$ used in year $y$ (GJ/mass or volume unit)
$EF_{CO_2,i,y}$	Average CO <sub>2</sub> emission factor of fossil fuel type $i$ used in year $y$ (tCO <sub>2</sub> /GJ)
$EG_{d,y}$	Quantity of electricity generated in the captive power plant at project plant $d$ in year $y$ (MWh) based on the design specifications of the energy requirements for the project activity.

This is to be noted that the emission factor for the off-grid power supply will be calculated *ex-post* at individual CPA level, based on the actual implementation, actual operation and fuel type used for the off-grid power generation. In the *ex-post* scenario, sources of fuel for off-grid power generation will be monitored.

For *ex-ante* estimation purpose, CME has calculated the emission factor for the off-grid power supply considering the supplier's technical specification of the off-grid generator, fuel type as diesel oil and the value validated as 0.85 tCO<sub>2</sub>/MWh. The *ex-ante* estimation of off-grid electricity emission factor as provided under “Emission Factor for Off-grid Generation”<sup>n/4.b/</sup> sheet has been reviewed and found to be justified.

**Indirect Project Emissions:** are those caused by passengers from their origin point up to the project entry station and from the project exit station up to the final trip destination through use of other modes of transport. Quarterly survey will be carried out after project implementations which identify what modes of transport passengers actually used from trip origin to project entry station and from project exit station to trip destination as well as the determination of the distances involved.

$$IPE_y = \frac{\sum_s \sum_i P_{PJ,i,s,y} \times TD_{PJ,i,s,y} \times EF_{PKM,i}}{10^6} \quad (\text{Equation 5, AMS-III.U., Version 01})$$

Where:

$IPE_y$	Indirect project emissions in the year $y$ (tCO <sub>2</sub> e)
$P_{PJ,i,s,y}$	Number of passengers transported by the project in the quarter $s$ of the year $y$ using mode $i$ for trips to and from the project system (passengers)

$TD_{PJ,i,s,y}$  Average trip distance of passengers using mode  $i$  in the quarter  $s$  of the year  $y$  to and from the project system (kilometer)

$EF_{PKM,i}$  Emission factor per passenger-kilometre of vehicle category  $i$  (grCO<sub>2</sub>/PKM)

$\sum_s$  Sum of the four (4) quarterly surveys realized

### Passengers per Mode:

$$P_{PJ,i,s,y} = P_{s,y} \times SP_{PJ,i,s,y} \quad (\text{Equation 6, AMS-III.U., Version 01})$$

Where:

$P_{PJ,i,s,y}$  Passengers transported by the project in the quarter  $s$  of the year  $y$  using mode  $i$  for trips to and from the project system (passengers)

$P_{s,y}$  Passengers transported by the project in the quarter  $s$  of the year  $y$  (passengers)

$SP_{PJ,i,s,y}$  Share of passengers transported by the project in the quarter  $s$  of the year  $y$  using mode  $i$  to and from the project systems (%)

### Total Project Emissions:

Total project emissions are the sum of indirect and direct project emissions.

$$PE_y = DPE_y + IPE_y \quad (\text{Equation 7, AMS-III.U., Version 01})$$

Where:

$PE_y$  Project emissions in the year  $y$  (tCO<sub>2</sub>e)

$DPE_y$  Direct project emissions in the year  $y$  (tCO<sub>2</sub>e)

$IPE_y$  Indirect project emissions in the year  $y$  (tCO<sub>2</sub>e)

### Leakage Emissions:

As per paragraph 29 of the applied methodology<sup>7/</sup>, leakage emissions will come in picture in case if any significant (10% or higher) change in the average occupancy rate of each of the vehicle category is observed in survey results.

Effect of induced traffic is covered under project emission; hence it is not considered as leakage emissions.

Thus **Emission reductions** are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y \quad (\text{Equation 8, AMS-III.U., Version 01})$$

Where:

$ER_y$  Emission reductions in year  $y$  (tCO<sub>2</sub>e)

$BE_y$  Baseline emissions in year  $y$  (tCO<sub>2</sub>e)

$PE_y$  Project emissions in year  $y$  (tCO<sub>2</sub>e)

$LE_y$  Leakage emissions in year  $y$  (tCO<sub>2</sub>e)

All the assumption and data used by the project participants are listed in the POA-DD and/or supporting documents. All documentation relevant to establish the baseline scenario is correctly quoted and interpreted in the POA-DD. Assumptions and data used in the identification of the baseline scenario are justified appropriately supported by evidence and can be deemed reasonable. Relevant national and/or sectoral policies and circumstances are considered and listed in the POA-DD.

The validation of the application of baseline methodology and calculation of emission factor has been done and found to be fulfilling the requirement of paragraph 99-104 of VVS version 09.0.

### ***Discussion on CAR/CL:***

**CAR #7** was raised to ask PP to clarify below points;

1. The value of the number of days used for calculations in the baseline and project scenario was different.
2. The demarcation of lines – red, green and blue is very specific to Lagos. PP was asked to clarify the appropriateness of using the terminology for the three lines in the PoA-DD.
3. Pg14 of the PoA-DD refers to the summation of 4 surveys; it was not clear how this figure is arrived without the surveys having been realised.
4. Refer Cell B33 of the spreadsheet Cable train 140115.xls: Green Line, a value of 11.2 has been used for Green line, but the value could not be validated against the distances calculated through measuring distances through the google maps. The value reflected on the google map is 8.4. Ref. Parameter DDB : Total distance driven of buses of various sub-categories prior project start.
5. Refer Cell B35-B38 of the spreadsheet Cable train 140115.xls: a value of 0.3, 0.3 and 0.5 has been used in cells B36, B37 and B38 respectively but the basis of determining these figures is an assumption and is not clear.
6. Refer Cell B69 and B70 of the spreadsheet Cable train 140115.xls , specific weight of fuel type 'x', default values of 0.745kg/l and 0.825kg/l have been used for gasoline and diesel respectively, the source of the values have not been specified.
7. Refer cell 17,18 & 19 a power reference factor of 0.8 has been used, the source of this figure is not clear
8. During the site visit it was observed that the state of Lagos has frequent power cuts, power back up arrangements and their effect on project emissions was not discussed in the POA DD
9. The parameter 'occupancy rate of vehicle category i is to be monitored, the measurement procedure states that this should be done before the start of the project and specified intervals thereafter - these intervals have not been defined in the PD. – Every other year depending on data availability.

In response, PP submitted revised POA DD below corrections made.

1. The PP has now consistently used 323 days for calculations in the baseline as well as the project scenario in the excel spreadsheet evident from the Lagos Cable Transit Project Traffic Advisor (pg. 59 - 60); a document prepared for the African Development Bank. Hence accepted and closed out.
2. The PP has retained the demarcation of the lines i.e. red, green and blue in the revised ER spreadsheet and the revised PoA-DD, but has clarified in the PoA-DD (Part II Section B.6.3) that the designations "Blue", "Red", and "Green" are those used in the initial CPA, but the lines are generic and any designation and number of lines can be used; hence it was accepted.
3. The PP has clarified that since the project is yet to be implemented, the only surveys carried out were those used for the purpose of study for LAMATA and these are the basis for the estimation in the PoA-



DD. The PP has also mentioned in Appendix 5 of the PoA-DD that the survey will be realised as described in the methodology once the implementation of the projects starts and mentioned the same in footnote 10 of the PoA-DD that “When the Programme of Activities starts, surveys will be carried out.” The applied methodology AMS III.U (page 5) states that “The surveys should commence no later than six months from the commissioning of the project; hence the justification by the PP is accepted.

4. Cell B33 in the previous ER sheet<sup>4/</sup> is cell B30 in the revised ER sheet. The PP has revised the value to 8.4 which has been validated against the distances calculated through measuring distances through the google maps.
5. Cells B35-B38 in the previous ER sheet<sup>4/</sup> are cells B32-B35 in the revised ER sheet. The PP has clarified that the values of 0.3, 0.3 and 0.5 are based on longest distance of the cable car station to a bus/taxi station and are conservative estimates. However, **FAR #8** is raised to check the same during the first verification of this project.
6. Cells B69 and B70 in the previous ER sheet are cells B66 and B67 in the revised ER sheet<sup>4/</sup>. The PP has referred to the source [http://en.wikipedia.org/wiki/Diesel\\_fuel](http://en.wikipedia.org/wiki/Diesel_fuel) for the specific weight of gasoline and diesel. The values from this source have also been cross checked with other publically available sources and are found to be appropriate. In the final ER spreadsheet, these values are removed as specific fuel consumption in gm/km is considered for further calculation and values in litres are not used any further.
7. The power reference factor of 0.8 used in tab “Project emissions” has now been listed in the “Assumptions” tab with the source also mentioned.
8. The PP has now clarified the power shortage and erratic power supply in Nigeria in Section B.6.3 of the PoA-DD and justification given by PP was found to be appropriate.
9. The PP has defined the parameter ‘occupancy rate of vehicle category i’ in section B.7.1 of the PoA-DD. The values presently applied in the calculation have been mentioned in the PoA-DD which is consistent with the ER excel spreadsheet. The PP has also mentioned the monitoring frequency as years 3 and 7 as a 7-year crediting period is the option chosen. This is consistent with the applied methodology.

**CAR #7** was further extended as a result of comments raised during UN Information & Reporting Check and this CAR was reopened due the following points:

In the spreadsheet of grid emission factor, it has been identified that under step 4 (i.e. calculate the OM):

- a. Option B of the “Tool to calculate the emission factor for an electricity system” version 4 is selected to calculate simple OM, which requires fuel consumption data in the project electricity system; however, the fuel consumption data of plant “Okpai” “Afam6” “Ibom” “Omoku” and “Trans Amadi” are not available, several calculated/assumed values are used instead and no relevant explanatory note(s) were found to mentioned in the spreadsheet in this regard.
- b. In calculating the plant emissions of specific thermal power plant, NCV of diesel is multiplied with carbon emission factor of gas and divided by efficiency of combined cycle, for example, the plants “Egbin” and “Sapele” etc. (cell G13 and G14 of tab “Step 4”); however, it was not clear why the parameters of diesel and gas are used together in calculating the plant emissions of a single specific thermal plant;
- c. Plant efficiencies (e.g. Efficiency of Combined Cycle before 2000, as per UNFCCC Tool) is applied to calculate several plant emissions (12 out of the 14 identified thermal plants in the project electricity system), which was not in line with the formula (equation 9) related to the selected option B.
- d. Information on the fuel type(s) of each power plant had not been specified in the spreadsheet (step 4) as per the requirement of “Tool to calculate the emission factor for an electricity system” version 4 (was valid at the time of findings raised).

In response to re-opened CAR #7, CME has submitted the revised grid emission faction calculation sheet containing further justification against the commented points. The correction made to revised grid emission faction calculation sheet has been reviewed and the commented points were found to be resolved in the following manner:



- a. It has been observed that under tab “Step 4”, below the table Data Sources, an explanatory note has been added to clarify the OM calculation approach for the five specific privately operated power plants (Okpai, Afam6, Ibom, Omoku, and Trans Amadi) where fuel consumption data are not publicly available. In absence of the fuel consumption data the OM emission factor as well as fuel consumption values for those five power plants has been indirectly computed based on available power generation data of the respective power plants and default values of carbon emission factor (IPCC) for natural gas and efficiency of combined cycle power plant (UNFCCC Tool) following the approach of equation 5 of Methodological Tool to calculate the emission factor for an electricity system, Version 05. Thus accepted.
- b. Under tab “Step 4”, it was observed that the concerned error in the application of equation for calculation of Operating Margin was occurred due to cell jump for the cells G13 and G14, that error has been duly rectified in the revised calculation sheet and the application of equation was found to be consistent among all eight gas fired power plants except the five identified privately operated gas fired power plants (Okpai, Afam6, Ibom, Omoku, and Trans Amadi) where fuel consumption data are not publicly available. It was noted that there was no impact on the calculated emission factor value due to the correction made. Thus accepted.
- c. Under tab “Step 4”, it was observed that the concerned error in the application of equation for calculation of Operating Margin was occurred due to cell jump, that error has been duly rectified in the revised calculation sheet and the application of equation was found to be in line with the equation 9 of Methodological Tool to calculate the emission factor for an electricity system, Version 05 and consistent among all eight gas fired power plants except the five identified privately operated gas fired power plants (Okpai, Afam6, Ibom, Omoku, and Trans Amadi) where fuel consumption data are not publicly available. It was noted that there was no impact on the calculated emission factor value due to the correction made. Thus accepted.

**CAR #07** was subsequently re-opened to obtain further clarification on the following points, with reference to 3<sup>rd</sup> UN Information & Reporting Check comments dated 26/05/2016:

- (a) As per the Appendix 4 of the POA-DD ver. 12, the Simple OM has been chosen to be calculated following Option B of the Step 4, “Tool to calculate the emission factor for an electricity system” version 05. However it has been observed that the Option B has not been followed uniformly and for five power plants “Okpai” “Afam6” “Ibom” “Omoku” and “Trans Amadi” (where fuel consumption data are not available); the CME has applied equation 5 of the Tool to calculate the fuel consumption of those plants, by applying default energy conversion efficiencies as per appendix 1 of the Tool. However, equation 5 is only applicable under option A of Step 4.
- (b) In determination of Simple OM, the default energy conversion efficiencies applied above are 60% (assuming new combined cycle power plant) and 39.5% (assuming new open cycle power plant) for those five power plants “Okpai” “Afam6” “Ibom” “Omoku” and “Trans Amadi” as per appendix 1 of the Tool; however, in contrast lower energy conversion efficiencies (i.e. between 25.4% and 36.5%, from 2009 to 2011) have been indicated in other data-available natural gas based power plants, based on the fuel consumption data in the spread sheet.

Considering the higher default energy conversion efficiency applied above (for five power plants) would result in lower grid emission factor and consequently lower project emission from electricity consumption. Therefore the CME was requested to justify the conservativeness of the *ex-ante* determined grid emission factor.

In response to the reopened CAR #7, CME has been made the necessary corrections in the POA-DD. The corrected POA-DD has been further reviewed and it has been identified that in response to UNFCCC commented points, CME has modified the methodological choice to determine the electricity emission factor for calculation of the Direct Project Emissions. In the revised POA-DD, the source of electricity supply for cable car system has been restricted to dedicated off-grid sources (generators) to ensure the uninterrupted power supply and has excluded the option of grid power supply for cable car system due to unreliability of the grid system of Nigeria. Therefore, in the modified approach the direct project emissions

due to power consumption in cable car system will be calculated only based on power supply and emission factor for off-grid sources (generators).

The modification of the methodological choice made in the POA-DD to determine the electricity emission factor for direct project emission calculation was found to be in compliance with the provision as per equation 4 of Tool to calculate baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation" Version 02 and no further assessment was required in relation to the UNFCCC commented points towards *ex-ante* grid electricity emission factor calculation. This was noted that the emission factor for the off-grid power supply will be calculated *ex-post* at individual CPA level, based on the actual implementation, actual operation and fuel type used for the off-grid power generation. In the *ex-post* scenario, sources of fuel for off-grid power generation will be monitored.

Therefore the final Emission Factor Calculation approach for the off-grid power supply for the cable car system was found to be justifying the commented context with regard to the re-opened issues and hence **CAR #7** was closed out.

The detailed discussion trail on above CAR #7 can be referred in section A.3 of this validation report.

### Validation Opinion:

The assessment team is of the opinion that:

- a) All the assumptions and data used by the project participant are listed in the POA DD, including their references and sources;
- b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the POA DD;
- c) The baseline methodology, any corresponding tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;
- d) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the POA-DD
- e) The sampling efforts were undertaken in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities, version 05.0"<sup>31/</sup>
- f) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;
- g) Relevant national and/or sectoral policies and circumstances are considered and listed in the POA DD;
- h) The approved baseline methodology has been correctly applied to identify the most plausible baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed project activity.

As per the requirement of paragraph 140, 141, 143 and 144 of VVS version 09.0, this was confirmed that adequate justification has been provided (based on the choice of the baseline scenario, context of the proposed CDM programme of activity and other evidence provided) and that the correct equations and parameters have been used in accordance with the methodology selected including applicable tools.

#### 4.11 Application of Monitoring Methodology and Monitoring Plan

The monitoring methodology of AMS III.U, version 01 has been correctly followed in the POA DD, and the required parameters of the monitoring plan are also inline to the applicable methodology. The monitoring methodology applies consistently the choice of the option selected for monitoring both project emissions and baseline emissions.

The PP has referred the following tools, as a part of the monitoring methodology and monitoring plan in this POA-

- Methodological Tool: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, Version 02.0<sup>/8.b/</sup>;
- Tool to calculate the emission factor for an electricity system, version 05<sup>/8.c/</sup>.

The detailed steps to calculate baseline, project and leakage emissions have been discussed under section 4.10 of this report. Further the assessment of ex-ante parameters considered in the POA has been carried out as depicted below;

##### Assessment of ex-ante parameters:

Parameter	Description	Value	Assessment
SFC <sub>PT,G</sub> , SFC <sub>SB,G</sub> , SFC <sub>BB,D</sub>	Specific fuel consumed by Passenger car/Taxi and Small buses of fuel type gasoline and Big buses of fuel type diesel.	This is an ex ante parameter and its value will be different for each CPA. Thus this value will be determined with respect to each CPA. Each CPA should have the value of the parameter based on location and time of CPA inclusion.	As per paragraph 16 of applied methodology <sup>7/</sup> , the value of this parameter will be determined on individual CPA level following the any data source in the decreasing order of preference as: <ol style="list-style-type: none"> <li>1. Local measured data not elder than 3 years (studies e.g. conducted by the project proponent or conducted by reputed institutions including relevant department of Universities);</li> <li>2. National or international data from studies not elder than 3 years;</li> <li>3. IPCC default values for the respective vehicle categories (latest year).</li> </ol> CPA can use either of the alternatives (Alternative 1, Alternative 2 or Alternative 3) stated in the methodology.
N <sub>x,i</sub>	Number of vehicles of category i using fuel type x	This is an ex ante parameter and its value will be different for each CPA. Thus this value will be determined with respect to each CPA. Each CPA should have the value of the parameter based on location and time of CPA inclusion.	This parameter will be determined by one of the following options; <ul style="list-style-type: none"> <li>• Municipal or road transport t authorities based on vehicle registration statistics from the respective city; or</li> <li>• Data from vehicle control stations (technical and emission control stations);</li> <li>• If no city/municipal data is available regional data (canton, state) or as the last option</li> </ul>

			<p>national data can be used.</p> <p>Used for all vehicle categories included in the project. For buses as well as for taxis informal sector (including vehicle not registered as per legal provisions) may be operating. While estimates on the number of informal units may be available these are due to their nature not trustworthy. For both categories, it is thus recommended to only include formally registered units.</p> <p>As the methodology is based on emissions per PKM absolute numbers are not relevant for determining this parameter. It is however important that transported passengers are also based on the official records thus not including passenger trips of informal units.</p>						
NCV <sub>x</sub>	Net calorific value of fuel x	<table><tr><th>Fuel</th><th>NCV, J/gr</th></tr><tr><td>Gasoline</td><td>44.8 x 10<sup>3</sup></td></tr><tr><td>Diesel</td><td>43.3 x 10<sup>3</sup></td></tr></table>	Fuel	NCV, J/gr	Gasoline	44.8 x 10 <sup>3</sup>	Diesel	43.3 x 10 <sup>3</sup>	As per methodological option, the NCV values of fossil fuels used in various modes of transportation are sourced from IPCC default values at the upper limit of the uncertainty at a 95% confidence interval as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories <sup>/21/</sup>
Fuel	NCV, J/gr								
Gasoline	44.8 x 10 <sup>3</sup>								
Diesel	43.3 x 10 <sup>3</sup>								
EF <sub>CO2,D</sub> , EF <sub>CO2,G</sub>	CO <sub>2</sub> emission factor for diesel and gasoline	<table><tr><th>Fuel</th><th>CO<sub>2</sub> emission factor, grCO<sub>2</sub>/J</th></tr><tr><td>Gasoline</td><td>73.0 X 10<sup>-6</sup></td></tr><tr><td>Diesel</td><td>74.8 X 10<sup>-6</sup></td></tr></table>	Fuel	CO <sub>2</sub> emission factor, grCO <sub>2</sub> /J	Gasoline	73.0 X 10 <sup>-6</sup>	Diesel	74.8 X 10 <sup>-6</sup>	As per methodological option, the CO <sub>2</sub> emission factor for diesel and gasoline used in various modes of transportation are sourced from IPCC default values at the upper limit of the uncertainty at a 95% confidence interval as provided in Table 1.4 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories <sup>/21/</sup>
Fuel	CO <sub>2</sub> emission factor, grCO <sub>2</sub> /J								
Gasoline	73.0 X 10 <sup>-6</sup>								
Diesel	74.8 X 10 <sup>-6</sup>								
OC <sub>PT</sub> , OC <sub>SB</sub> , OC <sub>BB</sub>	Average occupation rate of passenger car/Taxi, small buses and big buses	This is an ex ante parameter and its value will be different for each CPA. Thus this value will be determined with respect to each CPA. Each CPA should have the value of parameter based on location and time of CPA inclusion.	As per the AMS-III.U Methodology - Municipal transport authorities/specific studies done by the project proponent or a third party.  This would be further crosschecked through survey visual occupation studies for all vehicle categories, boarding-alighting studies and number of electronic smart tickets.						

DD <sub>B</sub>	Total distance driven of buses of various sub-categories prior project start	This is an ex ante parameter and its value will be different for each CPA. Thus this value will be determined with respect to each CPA. Each CPA should have the value of parameter based on location and time of CPA inclusion.	The distance data will be sourced from bus companies (company records), municipal transport authorities or specific studies done by the project proponent or a third party (not older than 3 years).
EC <sub>R</sub>	Quantity of electricity consumed by the baseline rail based transit system	This is an ex ante parameter and its value will be different for each CPA. Thus this value will be determined with respect to each CPA. Each CPA should have the value of parameter based on location and time of CPA inclusion.	For the proposed Programme of Activity, the most plausible alternative scenario is continued usage of passenger cars and transit buses. This quantity of electricity consumed by the rail based transit system.
P <sub>R</sub>	Total passengers transported by baseline rail based transit system per year	This is an ex ante parameter and its value will be different for each CPA. Thus this value will be determined with respect to each CPA. Each CPA should have the value of parameter based on location and time of CPA inclusion.	For the proposed Programme of Activity, the most plausible alternative scenario is continued usage of passenger cars and transit buses. For LCCT project, it is not applicable. However, it will be checked at the time of inclusion of each CPA.
TD <sub>PR</sub>	Average trip distance of urban rail based transit passengers	This is an ex ante parameter and its value will be different for each CPA. Thus this value will be determined with respect to each CPA. Each CPA should have the value of parameter based on location and time of CPA inclusion.	For the proposed Programme of Activity, the most plausible alternative scenario is continued usage of passenger cars and transit buses. For LCCT project, it is not applicable. However, it will be checked at the time of inclusion of each CPA.

It was confirmed that all data sources and assumptions considered for ex-ante determined parameters are appropriate and calculations are correct as applicable to the proposed CDM project activity and will result in an accurate or otherwise conservative estimate of the emission reductions as per the requirement of paragraph 142(a) of VVS version 09.0.

#### Assessment of Monitored Parameters (ex-post):

The monitoring plan provides the procedure for the collection and archiving of all relevant data necessary for estimation or measurement of the emission reductions within the project boundary during the first crediting period. The information given for each monitoring variable by the presented table is sufficient to ensure the verification of a proper implementation of the monitoring plan. The CME has included required parameters in monitoring section B.7.1 of POA DD<sup>1/</sup>. The CME has further defined the following parameters in section B.7.1 of the POA DD<sup>1/</sup>, which was assessed by the assessment team.

Parameter	Assessment
P, (Passengers)	<p>The parameter "Total Passengers transported by the project" will be sourced from Cable Car operator.</p> <p>The passenger numbers shall be calculated based on counting physically passengers e.g. through electronic smart cards or mechanical entry control units. During on-site visit to</p>

	<p>LCCT project, it is understood that entry control units will be installed to count number of passengers and the value of this parameter will be sourced from entry statistics.</p> <p>The data for this parameter is continuously aggregated and recorded every quarter.</p>
SP <sub>BL,i,s</sub> (%)	<p>The parameter “Share of passengers in the quarter <i>s</i> of the respective year who would have used the baseline mode” will be sourced from Cable Car operator.</p> <p>This parameter will be monitored at individual CPA level through Survey realized at a 95% confidence interval with a maximum 5% error margin. As per the sampling plan description outlined in Annex 5 of the POA-DD, this monitoring parameter has been identified as proportion value (type of parameter of interest) and a simple random sampling method based on “Standard for sampling and surveys for CDM project activities and programme of activities, version 05.0”<sup>31/</sup> will be followed for ex-post determination. The sample size determination approach and algorithm for this parameter of interest as specified under Annex 5 of the POA-DD was found justified.</p> <p>The data for this parameter will be continuously aggregated and recorded every quarter.</p>
SP <sub>PJ,i,s</sub> (%)	<p>The parameter “Share of passengers using the project mode <i>i</i> in the quarter <i>s</i> of the respective year from trip origin to the project entry station and from project exit station to their final destination” will be sourced from Cable Car operator.</p> <p>This parameter will be monitored at individual CPA level through Survey realized at a 95% confidence interval with a maximum 5% error margin. As per the sampling plan description outlined in Annex 5 of the POA-DD, this monitoring parameter has been identified as proportion value (type of parameter of interest) and a simple random sampling method based on “Standard for sampling and surveys for CDM project activities and programme of activities, version 05.0”<sup>31/</sup> will be followed for ex-post determination. The sample size determination approach and algorithm for this parameter of interest as specified under Annex 5 of the POA-DD was found justified.</p> <p>The data for this parameter will be continuously aggregated and recorded every quarter.</p>
TD <sub>BL,i,s</sub> (km)	<p>The parameter “Trip distance of passengers using the baseline mode <i>i</i> in the quarter <i>s</i> of the respective year” will be sourced from Cable Car operator.</p> <p>This parameter will be monitored at individual CPA level through Survey realized at a 95% confidence interval with a maximum 5% error margin. As per the sampling plan description outlined in Annex 5 of the POA-DD, this monitoring parameter has been identified as mean value (type of parameter of interest) and a simple random sampling method based on “Standard for sampling and surveys for CDM project activities and programme of activities, version 05.0”<sup>31/</sup> will be followed for ex-post determination. The sample size determination approach and algorithm for this parameter of interest as specified under Annex 5 of the POA-DD was found justified.</p> <p>The data for this parameter will be continuously aggregated and recorded every quarter.</p>
TD <sub>PJ,i,s</sub> (km)	<p>The parameter “Trip distance of passengers using the project mode <i>i</i> in the quarter <i>s</i> of the respective year from their trip origin to the project entry station and from the project exit station to their final destination” will be sourced from Cable Car operator.</p> <p>This parameter will be monitored at individual CPA level through Survey realized at a 95% confidence interval with a maximum 5% error margin. As per the sampling plan description outlined in Annex 5 of the POA-DD, this monitoring parameter has been identified as mean value (type of parameter of interest) and a simple random sampling method based on “Standard for sampling and surveys for CDM project activities and programme of activities, version 05.0”<sup>31/</sup> will be followed for ex-post determination. The sample size determination approach and algorithm for this parameter of interest as specified under Annex 5 of the POA-DD was found justified.</p> <p>The data for this parameter will be continuously aggregated and recorded every quarter.</p>



EC <sub>PJ</sub> (kWh)	<p>The parameter “Quantity of electricity consumed by the cable car for traction” will be sourced from Cable Car operator and measured through energy meters.</p> <p>The value of this parameter will be estimated based on name plate ratings on the electric motors provided by the technology supplier<sup>22/</sup> and estimated operational hours of Cable Car.</p> <p>The data for this parameter will be continuously aggregated and recorded at least annually.</p>
Occupancy rate of vehicle category i (Passengers)	<p>The parameter “Any significant (10% or higher) change in the average occupancy rate of each of the vehicle category is considered as leakage of the project” will be sourced from Specific studies done by the project participant or third party.</p> <p>As per applied methodology, survey needs to be carried out before project start date and thereafter during year 3, year 6 and year 10 for fixed crediting period; and before project start date and year 3 and year 7 for renewable crediting period.</p> <p>This parameter will be monitored at individual CPA level through Survey realized at a 95% confidence interval with a maximum 5% error margin. Vehicle category will be defined based on the categories in the CPA and for purpose of the vehicle passenger occupancy calculation; the capacity of each vehicle category as established for the CPA will be applied. As per the sampling plan description outlined in Annex 5 of the POA-DD, this monitoring parameter has been identified as mean value (type of parameter of interest) and a simple random sampling method based on “Standard for sampling and surveys for CDM project activities and programme of activities, version 05.0”<sup>31/</sup> will be followed for ex-post determination. The sample size determination approach and algorithm for this parameter of interest as specified under Annex 5 of the POA-DD was found justified.</p>
EC <sub>D,y</sub> (kWh)	<p>The parameter “Quantity of electricity generated in captive power plant” will be sourced from Cable Car operator and measured through energy meters.</p> <p>The data for this parameter is continuously aggregated and recorded at least annually.</p>
FC <sub>n,i,t</sub>	<p>The parameter “Quantity of fossil fuel type <i>i</i> fired in the captive power plant <i>n</i> in the time period <i>t</i>” and is sourced from cable car operator. The value of this parameter is continuously aggregated and recorded at least annually.</p>
NCV <sub>i,t</sub> (GJ / litres)	<p>The parameter “Average net calorific value of fossil fuel type <i>i</i> used in the period <i>t</i> “. As per the option (d) of the tool Methodological Tool: “Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 02” as option (a) is not available. This value is sourced from IPCC values at the upper limit of the uncertainty at a 95% confidence interval as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories to calculate the project emissions.</p>
EF <sub>CO<sub>2</sub>,i,t</sub> (t CO <sub>2</sub> / GJ)	<p>The parameter “CO<sub>2</sub> emission factor of fossil fuel type <i>i</i> used in the period <i>t</i> “. As per the option (d) of the tool Methodological Tool: “Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 02 as option (a) is not available. This value is sourced from IPCC values at the upper limit of the uncertainty at a 95% confidence interval as provided in Table 1.4 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories to calculate the project emissions.</p>
EF <sub>off-grid</sub> (kgCO <sub>2</sub> /kWh)	<p>Emission factor for the off- grid electricity. This parameter will be calculated <i>ex-post</i> basis at individual CPA level as per equation 4 of the Methodological Tool: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation” (Version 02).</p>

The monitoring plan completely describes all measures to be implemented for monitoring of all parameter required. The relevant data for a particular CPA will be recorded by the CPA implementer and will be provided to the CME. The data received will be archived electronically for computations of emission

reductions on annual basis. Each CPA shall follow all the provision of the POA including those related to monitoring plan.

The assessment team is convinced of compliance of the monitoring plan with the requirements of the monitoring methodology of AMS-III.U, version 01. During the on-site assessment, the validation team interviewed the CME and confirms that the monitoring arrangements described in the monitoring plan are feasible within the project design.

Proper QA/QC has been implemented for monitoring parameters and calibration of the monitoring equipments. All the QA/QC procedures adopted are as per the requirement of the applied methodology AMS-III.U, version 01 and also as per the applied Methodological Tools.

### ***Discussion of CAR/CLs:***

**CAR #2** (issue 3) was raised as in section B.7.1 of the PoA-DD part II, all the rows for the description of the parameters have not been filled in. In response, PP submitted revised POA DD<sup>/1/</sup> with all the rows for the description of the parameters appropriately filled in. This is found to be appropriate and it is accepted. Thus CAR #2 (issue 3) closed out.

**CAR #5** was raised to ask to clarify why a sampling plan has not been provided in Section B.7.2 of the PoA-DD (part II) considering that there are 4 parameters in Section B.7.1 whose values will be obtained based on a survey. In response, the PP submitted a revised POA DD with detailed description on sampling approach to be followed in Appendix 5 of the POA DD.

**CAR #5** was further extended as a result of comments raised during UN Information & Reporting Check and this CAR was reopened due the following points:

PP was requested to demonstrate and justify the completeness of the sampling plan of the PoA and specific CPA in accordance with paragraphs 12, 21 and 23 of “Standard for sampling and surveys for CDM project activities and programme of activities” (i.e. sampling standard), with special emphasis to:

- a. information on whether the sampling for any parameter is to be conducted at PoA level or CPA level;
- b. information on how the sample size of each parameter is to be calculated/determined; and
- c. information on the proposed sample size of the first specific CPA.

In response, CME has made the relevant corrections and submitted the revised POA-DD and CPA-DD. The updated sampling plan description provided under Section of POA-DD and Section of specific CPA DD has been checked against the requirements with regard to the paragraphs 12, 21 and 23 of “Standard: Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN), Version 05.0 (EB86 annex 03) and the corresponding commented points were found to be resolved in the following manner:

- a. The revised POA-DD, Section B.2 and Appendix 5 was found to be specifically clarified the aspect of sampling method for the relevant monitoring parameters will be conducted at the individual CPA level with 5 step approach following the provisions of “Standard for Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN)”, version 05.0 and “Guideline for Sampling and surveys for CDM project activities and programme of activities (CDM-EB67-A06-GUID)”, version 04.0.
  - (i) The sampling size shall be determined by the 95% confidence interval and the 5% maximum error margin;
  - (ii) Sampling shall be statistically robust and relevant to the project activity i.e. the survey shall be a random distribution and will be a representative of the persons using the project transport system;



- (iii) The methodology to select persons for interviews shall be made random;
- (iv) Only persons over age 18 shall be interviewed considering the percentage of people in Nigeria that usually will embark on such trips alone without a guardian;
- (v) The survey is shall be realized on all week days and Saturdays with the sample size per day being proportional to the number of passengers transported by the project per corresponding week day. Sample size shall be determined using any of the options found suitable in line with Standard and Guideline for "Sampling and surveys for CDM project activities and programme of activities", version 05 and version 04 respectively;
- (vi) The sample size upwards and downwards in the cable car is proportional to the number of passengers transported upwards/downwards on the cable car;  
The survey will be realized as described in the methodology and in accordance with the survey plans by the transport authority for each cable car during one (1) calendar year. Thereafter the survey is not repeated.

This was found to be justified and hence accepted.

- b. The revised final POA-DD, Appendix 5 was found to be included the clarification on the determination of sampling size approach for the relevant monitoring parameters ( $SP_{BL,i,s}$ ,  $SP_{PJ,i,s}$ ,  $TD_{BL,i,s}$ ,  $TD_{PJ,i,s}$  and *Occupancy rate of vehicle category i*) at the individual CPA will be conducted following the relevant options prescribed under "Standard for Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN)", version 05.0 and "Guideline for Sampling and surveys for CDM project activities and programme of activities (CDM-EB67-A06-GUID)", version 04.0. This was found to be justified considering the general framework context for the specific CPAs defined in the POA-DD, since the sampling will be conducted at the individual CPA level.
- c. The revised final specific CPA-DD, Appendix 5 was found to be included the detailed elaboration on the sampling size determination approach (formula and assumptions) for the relevant monitoring parameters ( $SP_{BL,i,s}$ ,  $SP_{PJ,i,s}$ ,  $TD_{BL,i,s}$ ,  $TD_{PJ,i,s}$  and *Occupancy rate of vehicle category i*). The respective sampling size will be calculated on ex-post basis with a 95% confidence interval and the 5% maximum error margin using the corresponding formula and assumptions respective formula. The description on sampling size determination approach found to be transparent and justified. Hence accepted.

**CAR#05** was re-opened subsequently to obtain further clarity on the following points, with reference to 3<sup>rd</sup> UN Information & Reporting Check comments dated 26/05/2016:

In accordance with paragraph 7 and 12 of the "Standard: Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN), Version 05.0 (EB86 annex 03)", the type of parameter of interest, the sampling method, the sample size, the target value and expected variance are required in the sampling plan.

The sampling plan of the current PoA DD did not specify the framework options for the CPAs to be included under the POA, related to the following items as per the requirements of "Sampling and surveys for CDM project activities and programmes of activities, version 5":

- (a) the type of parameter of interest;
- (b) the sampling method(s) to be applied; and
- (c) how the sample size of each parameter is to be calculated/determined.

In response to the commented points on the sampling plan, CME has revised the sampling plan description under Annex 5 of the revised POA-DD. Upon review of the modified sampling plan description specified in the POA-DD it has been found that the requisite information related to "type of parameter of interest" (proportion or mean value) for the monitoring parameters ( $SP_{BL,i,s}$ ,  $SP_{PJ,i,s}$ ,  $TD_{BL,i,s}$ ,  $TD_{PJ,i,s}$  and *Occupancy rate of vehicle category i*) will be requiring sampling plan for monitoring purpose; sampling method as

simple random sampling and options related to sample size determination approach of each five parameters has been now transparently included.

The further included information in the sampling plan was found to be complete and fulfilling the requirements of paragraph 7 and 12 of the “Standard: Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN), Version 05.0 (EB86 annex 03), thus accepted.

Therefore the final POA-DD was found to be justifying the commented points with regard to the re-opened issues and hence **CAR #5** was closed out.

**CAR #6** was raised to ask PP to clarify below points;

1. Section C (Part I) of the PoA-DD does not define the roles and responsibilities of personnel as required by paragraph 19(a) of EB74, annex 5: Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities, version 03.0 (was valid at the time of findings raised).
2. As per the paragraph 19 (b) of EB74, annex 5 (was valid at the time of findings raised), “the CME shall develop and implement a management system that includes the following made available to the DOE at the time of validation of the PoA: (b) records of arrangement for training and capacity development for personnel shall be made available to the DOE at the time of validation.”
3. As per Section C (Part I) of the PoA-DD, the final CPA will be reviewed by the CME. No procedure for technical review has been defined as required by paragraph 19(c) of EB74, annex 5 (was valid at the time of findings raised).
4. Section C (Part I) of the PoA-DD, states that “All project activities will have specific GPS coordinates and as the project activities require significant fixed infrastructure, the CME can readily verify their uniqueness.” It is not clear how the uniqueness will be “readily verified”.
5. Measures for continual improvement of the PoA management system have not been mentioned in Section C (part I) of the PoA-DD as required by paragraph 19(f) of the EB74, annex 5 (was valid at the time of findings raised).

In response, PP submitted revised POA DD with section C (Part I) including description on roles and responsibilities, training and capacity building, and technical review procedure. Also it is clarified that all the project activities will be identified by unique ID numbers provided to them. Also section C (part I) of the POA DD now includes description on Measures for continuous improvements of the PoA management system. The description of the management system as presented in the final PDD was found to be in line with the requirement of paragraph 21 of Standard: Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities, Version 04.0<sup>27/</sup> and thus accepted; thus **CAR #6** was closed out.

The detailed discussion on above CARs can be referred in Annex 3 of this validation report.

### Validation Opinion:

Validation of the application of monitoring methodology and monitoring plan was done as per paragraph 148 and 149 of the VVS, Version 09.0. Based on the above discussion the validation team confirms that:

- (a) The description of monitoring plan included in the POA-DD is in compliance with the requirements of the applied methodology AMS-III.U version 1.0 including applicable tool(s);
- (b) All parameters required by the selected methodology including applicable tools have been included;
- (c) The monitoring arrangements described in the monitoring plan are feasible within the project design;
- (d) The means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures are found to be sufficient to ensure that the emission reductions resulting from the proposed CDM project activity can be reported *ex-post* and verified; and

- (e) CME is able to implement the described monitoring plan.

#### **4.12 Environmental Impacts**

The POA-DD has clearly mentioned that Environmental Impact Assessment will be carried out at the time of inclusion of each CPA to be included in the proposed POA. As per Environmental Impact Assessment Decree No 86 of 1992, Laws of the Federation of Nigeria (<http://www.nigeria-law.org/Environmental%20Impact%20Assessment%20Decree%20No.%2086%201992.htm>), EIA is mandatory for both public and private sectors for all development projects.

The appropriateness of the same was confirmed by the Local Assessor during the site visit. This was found to be fulfilled the requirement as per the requirement of paragraph 157-158 and 282 of VVS, version 09.0.

##### **Discussion on CAR/CL:**

**CAR #2** (issue 1) was raised to ask PP to clarify the appropriateness of the Section E.3 (PoA-DD Part I) "Environmental Impact Assessment" mentioned in the webhosted PoA-DD is not present in the PoA-DD form available on the UNFCCC website. In response, PP deleted the same from revised POA DD<sup>1/</sup>. This is found to be appropriate and it is accepted; thus CAR #2 (issue 1) was closed out.

The detailed discussion on above CAR can be referred in Annex 3 of this validation report.

#### **4.13 Local Stakeholder Comments**

Since, the CPAs to be included in the proposed POA are specific physical locations; thus POA-DD mentions that the local stakeholder consultation will be carried out at the time of inclusion of each CPA to the proposed POA and assessment team found it appropriate.

For local stakeholder consultation of LCCT project (first CPA), please refer validation report of specific CPA-DD (CPA-1) section 4.10.

##### **Discussion on CAR/CL:**

**CAR #2** (issue 4) was raised to ask PP to clarify why section F.1 of the PoA-DD (part I) does not include why the stakeholder consultation will be carried out at the CPA level, as required by the guidelines for completing the PoA-DD. In response, PP included justification on why the stakeholder consultation is carried out at CPA level in revised POA DD. This is found to be appropriate and it is accepted. Thus CAR #2 (issue 4) was closed out.

The detailed discussion on above CAR can be referred in Annex 3 of this validation report.

## 5. Comments by Parties, Stakeholders and NGOs

In accordance with sub-paragraphs 40 (b) and (c) of the CDM POA modalities and procedures, paragraph 20 of CDM Project Cycle Procedure, version 09.0 and paragraph 20 of CDM VVS version 09.0, the Programme of Activity design document of a proposed CDM POA Programme of Activity shall be made publicly available and the DOE shall invite comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available. This chapter describes this process for this Programme of Activity.

### 5.1 *Description of how and when the POA-DD was made publicly available*

The Programme of Activity Design Document for this Programme of Activity was made available on the UN website:

<http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/13SFZPWFPLHUD007M8OTVGSU0OVOY7/view.html> and was open for comments from 29/10/2013 until 27/11/2013. Comments were invited through the UNFCCC CDM POA homepage.

The further changes made to the subsequent revisions of the PoA-DD during the validation process were against the CAR/CL raised by the assessment team to bring in more clarity and consistency with the applied methodology and applied CDM guidelines. Neither of the changes made by the CME has been identified as per the provisions of paragraph 39 (a)-(c) of VVS version 09.0. Therefore repetition of the global stakeholder consultation process for the revised version of the PoA-DD was not required.

### 5.2 *Compilation of all Comments Received*

No comments were received for the POA.

### 5.3 *Explanation of How Comments Have Been Taken into Account*

No comments were received for the POA

## 6. List of Persons Interviewed

Date	Name	Position	Short Description of Subject Discussed
2 <sup>nd</sup> and 3 <sup>rd</sup> December 2013	Capt. Dapo Olumide Mr. Archie Duke	Ropeways Transport Limited – Project Participant's representative	Project description POA - & CPA, planning & implementation status, Stake holder's consultation, ownership details and Environmental impact of the POA.
2 <sup>nd</sup> and 3 <sup>rd</sup> December 2013	Mr. Paul Parks Mr. James Ogunleye	Carbon Limits Nigeria – Project Consultant	POA eligibility criteria, project boundary
2 <sup>nd</sup> and 3 <sup>rd</sup> December 2013	Mr. Paul Parks Mr. James Ogunleye	Consultant	Baseline, additionality & emission reduction calculation & monitoring plan, QA/QC procedures.

## 7. Document References

Category 1 Documents (documents provided by the Client that relate directly to the GHG components of the project, (i.e. the CDM Project Design Document, confirmation by the host Party on contribution to sustainable development and written approval of voluntary participation from the designated national authority):

Name of document
<p>/1/ POA DD, Version 01, dated 22/10/2013 (Webhosted Version)  (Web link:  <a href="http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/13SFZPWFLHUD007M8OTVGSU0OVOY7/view.html">http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/13SFZPWFLHUD007M8OTVGSU0OVOY7/view.html</a>)  POA DD, Version 02, dated 24/02/2014  POA DD, Version 03, dated 22/05/2014  POA DD, Version 04, dated 18/07/2014  POA DD , Version 05 dated 19/09/2014  POA DD, Version 06 dated 14/10/2014  POA DD, Version 07 dated 14/11/2014  POA DD, Version 08 dated 30/12/2014  POA DD, Version 09 dated 22/05/2015  POA DD, Version 10 dated 06/08/2015  POA DD, Version 11 dated 01/02/2016  POA DD, Version 12 dated 24/06/2016  POA DD, Version 13 dated 15/07/2016  POA DD, Version 14 dated 05/08/2016  POA DD, Version 15 dated 28/09/2016 (Final Version)</p>
<p>/2/ (a) Letter of Authorization from Federal Ministry of Environment, Nigeria (Ref: FMENV/DCC/285/I) dated 21/02/2014  (b) Letter of Authorization from Federal Ministry of Environment, Abuja (Ref: FMENV/DCC/285/I) dated 28/06/2014 authorizing Ropeways Transport Limited, Nigeria as Coordinating/Managing Entity for Cable Propelled Mass Transit Project POA in Nigeria</p>
<p>/3/ Modalities of Communication statement, dated 02/03/2016</p>
<p>/4/ a. Emission Reduction Calculation Sheet dated 15/01/2014  Emission Reduction Calculation Sheet dated 16/09/2014  Emission Reduction Calculation Sheet dated 30/12/2014  Emission Reduction Calculation Sheet dated 06/08/2015  Emission Reduction Calculation Sheet dated 08/07/2016 (Final)  b. Off-grid Generation Emission Factor Calculation Sheet</p>

Category 2 Documents (background documents used to check project assumptions and confirm the validity of information given in the Category 1 documents and in validation interviews):

Name of document
<p>/5/ Methodological Tool: Demonstration of additionality of small scale project activities (TOOL21), Version 10.0 (EB83 Annex 14)</p>
<p>/6/ (a) CDM Validation and Verification Manual Version 07.0; dated 01/06/2014  (b) CDM Validation and Verification Manual, Version 09.0; dated 20/02/2015 (EB82, Annex 14)</p>
<p>/7/ Approved Small Scale Methodology, AMS III.U version 01 dated 26/09/2008.</p>



<a href="http://cdm.unfccc.int/methodologies/DB/VY9S7SRQEI8EPZTWE7MDGSKRPWR57I">http://cdm.unfccc.int/methodologies/DB/VY9S7SRQEI8EPZTWE7MDGSKRPWR57I</a>
/8/ (a) Methodological Tool: Assessment of debundling for small-scale project activities (TOOL20), Version 04.0 (EB83 Annex 13) (b) Methodological Tool: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation (TOOL05), Version 02.0 (EB87 Annex 8);
/9/ CDM <a href="#">Project</a> Standard, version 9.0
/10/ Environmental Impact Assessment Consultancy Services for Lagos City Transit System by Sustainability Limited, Nigeria dated November 2012
/11/ Time Schedule for the overall LCCT project duration prepared for Ropeway Transport Limited by ILF consulting engineers dated 10/06/2014
/12/ Email communication, dated - 27/08/2014 from Mr. Samuel Adeoye Adejuwon (Director, Department of Climate Change, Federal Ministry of Environment) at the email address <a href="mailto:jareadejuwon@yahoo.com">jareadejuwon@yahoo.com</a>
/13/ ID Cards of MOC Signatories from Ropeways including their employment status and specimen signature.
/14/ Letter of declaration from Ropeways Transport Limited dated 22/10/2013 for LCCT Project
/15/ Lagos Cable Transit Project Traffic Advisor dated October 2012, Integrated Transport Planning Ltd, UK
/16/ Environmental and Social Impact Assessment Studies of the proposed LCCT system of Ropeways Transport Limited, prepared by Sustainability Limited dated November 2012.
/17/ Challenges of Transportation in Lagos, prepared by Lagos Metropolitan Area Transport Authority (LAMATA)
/18/ Guidelines for Objective demonstration and assessment of barriers, version 01 (i.e. EB 50 Annex 13)
/19/ Data Gathering to Implement GHG Emissions Reduction for LUTP II BRT corridors, prepared by ISSRC and FAO Consulting International, prepared for LAMATA dated 07/06/2013
/20/ Evaluation and Documentation of Lagos BRT-Lite dated February 2009 prepared by Integrated Transport Planning Ltd, UK
/21/ IPCC 2006 Guidelines for National GHG Inventories
/22/ Doppelmayr specifications, Rope Line Calculations dated 04/09/2012
/23/ Combined Margin Grid Emission Factor Calculation Sheet dated 15/01/2014
/24/ Lagos Cable Propelled Transit Preliminary Feasibility Study dated February 2011 prepared by Creative Urban Projects, Toronto
/25/ Franchise Agreement between the Government of Lagos State, LAMATA and Ropeways Transport Limited dated 24/12/2012
/26/ The weblink: <a href="http://africaisdonesuffering.com/2013/12/cable-cars-in-lagos-state-nigeria/">http://africaisdonesuffering.com/2013/12/cable-cars-in-lagos-state-nigeria/</a> was checked for debundling criteria of CPA.
/27/ Standard: Demonstration of additionality, development of eligibility criteria and applications of multiple methodologies for programme of activities (CDM-EB65-A03-STAN), Version 04.0 (EB87 Annex 03)
/28/ Urban Mass Transit Policies and programmes in Nigeria: <a href="http://www.sarpn.org/documents/d0002274/Poverty_reduction_Nigeria_Oct2005.pdf">http://www.sarpn.org/documents/d0002274/Poverty_reduction_Nigeria_Oct2005.pdf</a>
/29/ "Lagos Cable Car, First in Nigeria, to Transform Transport" published in Nigerian Muse ( <a href="http://www.nigerianmuse.com/20130319113723zg/sections/spotlight-focus-on-issues/lagos-cable-car-first-in-nigeria-to-transform-transport/">http://www.nigerianmuse.com/20130319113723zg/sections/spotlight-focus-on-issues/lagos-cable-car-first-in-nigeria-to-transform-transport/</a> )
/30/ "Cushioning electricity shortage with embedded generation", By Emeka Anuforo Abuja; The Guardian dated June 16, 2015 <a href="http://www.nguardiannews.com/2015/06/cushioning-electricity-shortage-with-embedded-generation/">http://www.nguardiannews.com/2015/06/cushioning-electricity-shortage-with-embedded-generation/</a>

/31/Standard: Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN), Version 05.0 (EB86 annex 03)

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## A.1 Annex 1: Local Assessment

This checklist is designed to provide confirmation of in-country data and information provided in the Programme of Activity Design Document for “Cable Propelled Mass Transit Projects in Nigeria”.

It serves as a “**reality check**” on the Programme of Activity that is completed by a local assessor from SGS Nigeria.

### Annex 1 - Local Assessment Checklist

Issue	Findings	Source/Mean of Verification	Further Action / Clarification / Information Required?
Evidence for start date of project activity	Time Schedule for the overall LCCT project duration <sup>11/</sup>	DR	No Action is required
Debundling criteria needs to be checked during site visit	This has been checked and found that the project activity is not a Debundling component of any other large scale project.	Site visit	No action is required
QA/QC procedure for data monitoring or ISO certificates for the Company (if applicable) and personal training programme, Operation and maintenance procedure and contract	CME has defined the QA/QC procedure.	Site visit/ DR/Interview	No action is required
Proof for media used to invite the local stakeholders and date of stakeholders meeting	This is done at the CPA level	DR/interview	No action is required

Location of all monitoring meters should be checked during site visit.	This is done at the CPA level.	Site visit	No action is required
The chronology of planning and implementation of the project activity	Chronology of implementation has been discussed with PP along with documentary evidences	DR/Interview	No action is required
Proof for No ODA involved	Letter of declaration from Ropeways Transport Limited dated 22/10/2013 for LCCT Project <sup>/14/</sup>	DR	No action is required
Proof for Ownership	Franchise Agreement between the Government of Lagos State, LAMATA and Ropeways Transport Limited <sup>/25/</sup>	Interviewed	No action is required
Technical specification of the project activity	Lagos Cable Transit Project Traffic Advisor dated October 2012, Integrated Transport Planning Ltd, UK	DR/Interview	No action is required
Baseline data to establish a consistent baseline prior to start of the project activity	Baseline data has been provided by CME	DR	No action is required
Evidence against EIA requirement for the project activity	Environmental and Social Impact Assessment Studies of the proposed LCCT system of Ropeways Transport Limited, prepared by Sustainability Limited dated November 2012 <sup>/16/</sup>	DR/Interview	No action is required

## A.2 Annex 2: Validation Checklist

**Table 1 Participation Requirements for Clean Development Mechanism (CDM) Programme of Activities (Ref POA-DD, Letters of Approval and UNFCCC website)**

Requirement	Means of Validation Reference	Comments	Conclusion/C ARs/ CLs
<p>1. All Parties involved have approved the programme of activity</p> <p>1.1. Has the DNA of each Party involved in the proposed CDM programme of activity in section A.3 of the POA-DD provided a written letter of approval which confirms</p> <p>1.1.1. The country is a Party to the Kyoto Protocol</p> <p>1.1.2. Participation is Voluntary</p> <p>1.1.3. The Host Party confirming that the proposed CDM programme of activity contributes to sustainable development of the country Non-Annex 1 Party shall submit a letter of approval</p> <p>1.1.4. It refers to the precise proposed CDM programme of activity title in the POA-DD being submitted for registration</p>	<p>Annex 3, Clean Development Mechanism, Validation and Verification Standard, Version 7.0  <b>(Note: This version of VVS was valid at the time of Validation process initiated and Request for Registration submitted before 27 Nov 2015. During re-submission stage, compliance with version 09.0 of VVS, PS and PCP has been assessed and discussed in the main body of the report) – 41 a-d-42 /51</b></p> <p>Paragraph 37 CDM Modalities and procedures</p>	<p>As per section A.4 of Part I of the PoA-DD, the Host Party is Nigeria. No Annex I Party is involved in this programme of activity.</p> <p>The LoA from Nigeria is to be submitted by the PP. The contents of the LoA was checked during the site visit and was found to be consistent.</p>	<p>CAR #1 Y CAR #1 is closed out.</p>

1.2. If the project participant(s) listed in the POA-DD published at international stakeholder <sup>2</sup> consultation are not included in the PoA-DD submitted with request for registration, a letter should be obtained from the withdrawn project participant(s) confirming its voluntary withdrawal from the proposed programme of activity.	EB 30 Para. 41. EB50 Annex 48 para. 8	The PP listed in the PoA-DD published for ISHC is "Ropeway Transport Limited, Nigeria". During the submission of the PoA-DD with a request for registration it has to be checked if the same PP is mentioned or not. PP is same in POA_DD CPA-DD during final submission	No issues found.
1.3. The letter/s of approval are unconditional with respect to 1.1.1 to 1.1.4 above	VVS Para. 46-49	<del>Pending submission of the LoA</del> Letter of Authorization from Federal Ministry of Environment, Abuja (Ref: FMENV/DCC/285/I) dated 21/02/2014 is now submitted for the project.	<del>Pending submission of the LoA</del> CAR #1 Y CAR #1 is closed out.
1.4. Are there more than one Party involved in the programme of activity.	EB 55 Annex 38	As per section A.4 of Part I of the PoA-DD, the Host Party is Nigeria. No other Party is involved in this programme of activity.	NO issues found.
1.5. Does the coordinating entity of the PoA identify measures to ensure that all CPAs under its PoA are neither registered as an individual CDM project activity nor included in another registered PoA and that the CPA is subscribed to the PoA?	Document Review	Since all the CPAs to be included in the POA are futuristic, it will be checked at the time of inclusion of each CPA.	
1.6. Is the authority and responsibility of the coordinating/management entity clearly described?	VVS Para 38-39	Yes the authority and responsibility of the CME is clearly mentioned in the POA-DD	CAR #1 Y CAR #1 is closed out.

<sup>2</sup> Stakeholders mean the public, including individuals, groups or communities affected, or likely to be affected, by the proposed CDM project activity or actions leading to the implementation of such an activity



1.7. Is the Coordinating Entity a project participant authorized by all participating host countries DNAs involved and identified in the modalities of communication as the entity which communicates with the Board?	EB 55 Annex 38	<p>The CME as per section A.3 (PoA DD part I) is Ropeway Transport Limited. The CME is also the PP as per section A.4 (PoA DD part I).</p> <p>Letter of Authorization from Federal Ministry of Environment, Abuja (Ref: FMENV/DCC/285/I) dated 21/02/2014 and Ref: FMENV/DCC/285/I dated 28/06/2014 is now submitted for the project.</p> <p>Modalities of Communication, dated 07/02/2014 is submitted by PP for validation purpose.</p> <p>CME / PP is authorized by the DNA to be part of the project activity and also identified in the MOC as the communicating entity with the board.</p>	<p><del>Pending submission of the LoA</del></p> <p><del>Pending submission of the MoC</del></p> <p><del>LoA finding raised above</del></p> <p><del>Raise finding for MoC</del></p> <p>CAR #1</p> <p>Y</p> <p>CAR #1 is closed out.</p>
1.8. Are more than one CME involved in the programme	EB 55 Annex 38	The CME as per section A.3 (PoA DD part I) is Ropeway Transport Limited. There is only 1 CME involved in the proposed Programme of Activity.	No issues found.
2. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for a minimum of 30 days, and the project design document and comments have been made publicly available	VVS Para. 34-37  Marrakech Accords, CDM Modalities, §40	POA DD and CPA DD are uploaded for global stakeholder consultation for the period of 29 Oct 13 - 27 Nov 13 on website <a href="http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/13SFZPWFLHUD007M8OTVGSU0OVOY7/view.html">http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/13SFZPWFLHUD007M8OTVGSU0OVOY7/view.html</a> .	No issues found. no comments received during ISHC
3. The PoA-DD is in accordance with the applicable CDM requirements for completing PoA-DDs.	VVS Para. 62-63  Marrakech Accords, CDM Modalities, Appendix B, EB Decisions	<p>The PP has used the CDM-SSC-PoA-DD-FORM Version 04.0 available on the UNFCCC webpage. This is the latest version of the template available on the UNFCCC website. The PP has completed this document without modifying the logo, format, and font.</p> <p>The Section E.3 (PoA-DD Part I) "Environmental Impact Assessment" mentioned in the webhosted PoA-DD is not present in the PoA-DD form available on the UNFCCC website.</p>	<p>CAR#01 and CAR #2 raised</p> <p>Y</p> <p>CAR#01 and CAR #2 is closed out.</p>

4. The project participants shall submit a completed modalities of communication (MoC) Form	VVS Para 53-58 F_CDM_MOC form available on UNFCCC website	Modalities of Communication, dated 02/03/2016 are submitted by PP for validation purpose.	<del>Pending submission of MoC form</del> Findings raised above CAR #1 Y CAR #1 is closed out.
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Table 2 POA-DD

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
<b>A. General Description of Programme of activity</b>				
<b>A.1. Project Title</b>				
A.1.1. Does the used project title clearly enable the reader to identify the unique CDM-PoA?	VVS Para.62-63 Guidelines for completing a CDM-POA-DD (POA-DD) section A.1	DR	The title of the PoA is "Cable Propelled Mass Transit Projects in Nigeria". There is no PoA with the same title on the UNFCCC website. Hence the project title clearly enables the reader to identify the unique CDM-PoA	No issues found.
A.1.2. Is there an indication of a revision number and the date of the revision?	VVS Para.62-63 POA-DD section A.1	DR	The webhosted POA DD and final POA DD has mentioned revision no and date of revision	No issues found.
A.1.3. Does the PoA-DD clearly indicate the completion date of PoA-DD	VVS Para.62-63 Guidelines for completing a CDM-POA-DD (POA-DD) section A.1	DR	The POA DD clearly mentions the completion date.	No issues found.
<b>A.2. Description of the small-scale programme of activities (PoA):</b>				
A.2.1. Does the description of the proposed CDM programme of activity as contained in the POA-DD sufficiently cover all relevant elements accurately?	VVS Para.64 POA-DD section A.2 see also A.4, A.4.3 and B.3	DR	The proposed CDM-PoA is the implementation of a new cable propelled mass transit system in Nigeria. The general operating procedure and implementation framework of the PoA; goal; confirmation that the PoA is a voluntary action; contribution to sustainable development has been mentioned in Section A.2. <del>Request the PP for supporting documents for footnotes 2 and 3. This has already been mentioned in the list of documents required. Raise a finding if the PP does not submit the documents. – Documents submitted</del> Check with Dominic.	<del>Raise a finding if the PP does not submit the documents or if there is any error in the tow</del>

Checklist Question	Ref. ID	MoV*	Comments	Conclusion/ CARs/CLs
			<ul style="list-style-type: none"> <li><del>Population distribution mentioned in para 2 in section A.2</del> – Checked. ok</li> </ul> <p>This project has been mentioned to be first such urban cable car project in Africa. – The presentation by the client mentioned two such projects in Algeria. PP corrected the statement to indicate that the proposed project activity is first in West Africa.</p>	<p><del>bullet points.</del></p> <p>Raise findings for the Algeria point CL #3 is raised. Y CL #3 is closed out.</p>
A.2.2. Is all information provided consistent and in compliance with the actual situation or planning?	VVS Para.64-69 POA-DD section A.2 see also A.4, A.4.2 and B.3	DR SV	The consistency and compliance of the information mentioned in the PoA-DD with the actual situation / planning was confirmed during the site visit.	<p><del>To be confirmed during the site visit</del></p> <p>No issues found.</p>
A.2.3. Is all information provided consistent with details provided in further sections of the POA-DD?	VVS Para.64-69 POA-DD section A.2	DR	The proposed CDM-PoA is the implementation of a new cable propelled mass transit system in Nigeria. The Purpose and general description of the PoA mentioned in Section A.2 of the PoA-DD is consistent with the further sections of the PoA-DD.	NO issues found
<b>A.3. Coordinating/managing entity and participants of SSC-POA:</b>				

A.3.1.	Is the table required for the indication of project participants correctly applied?	VVS Para. 46 POA-DD section A.3	DR	The table required for the indication of the PP has been correctly applied. Nigeria is the host Party; "Ropeway Transport Limited, Nigeria" is the PP and third column indicates that Nigeria does not wish to be considered as a PP.	No issues found
A.3.2.	Is all information provided in consistency with details provided by further sections of the POA-DD (in particular annex 1)?	VVS Para. 46 POA-DD section A.3		"Ropeway Transport Limited, Nigeria" is the PP as per Section A.3 "Ropeway Transport Limited, Nigeria" is the PP as per Section A.4 "Ropeway Transport Limited" is the PP as per Appendix 1 Name of the PP is consistent	No issues found
<b>A.4. Technical Description of the Programme of activity</b>					
<b>A.4.1. Location of the programme of activities</b>					
A.4.1.1.	Does the information provided on the location of the programme allow for a clear definition identification of the boundary for the PoA in terms of a geographical area, within which all CPAs included in this PoA will be implemented?	VVS Para.69	DR	Section A.5 of the PoA-DD states that all CPAs associated with this PoA will be implemented within Nigeria.	No issues found
A.4.1.2.	Is the consideration of all applicable national and/or sectoral policies and regulations of each host country within the boundary evident and substantiated?		DR	PP submitted Environmental and Social Impact Assessment Studies of the proposed LCCT system of Ropeways Transport Limited, prepared by Sustainability Limited dated November 2012 for the project and approval process is ongoing.	No Issues found
A.4.1.3.	Is/are the Host Party(ies) stated?		DR	The host Party has been stated in the table in Section A.4 as Nigeria.	No Issues found
A.4.1.4.	Do the project	VVS Para.64--69	DR	Yes	No Issues

participants possess ownership or licenses which will allow the implementation of the project at that site / those sites?				
A.4.1.5. Is the category(ies) of the programme of activity correctly identified?	VVS Para.64-69	DR	The PP has correctly identified the PoA to be of type III Category U in sections A.6 and B.3 of the PoA-DD.	No Issues found
A.4.1.6. Is all information provided in compliance with actual situation or planning as available by the project participants?	VVS Para.64-69 EB 52 Para. 13	DR	.All the project information provided is found consistent with the observations made during onsite visit and documents submitted for the proposed POA.	No Issues found
A.4.1.7. Is the table required for the indication of projected emission reductions correctly applied?	VVS Para.64-69	DR	Not Applicable	NA
A.4.1.8. Is it clearly mentioned if PoAs applying more than one technology/measure or more than one methodology, if so, is the coordinating/managing entity prepared a generic CPA for each technology/measure, each methodology and each combination	Project Standard version 4.0,	DR	<p>The proposed PoA applies one methodology only – AMS.III.U version 1.0</p> <p>The PP has mentioned the technology/measures to be employed by each CPA in three bullet points in section A.6; namely:</p> <ul style="list-style-type: none"> <li>• Transportation using cable technology mounted on fixed supports.</li> <li>• Cabins deployed on each line to carry groups of people. The total capacity varies depending on the type of line and cabin used.</li> <li>• The system is electricity driven which could be provided using off-grid or grid connected supply.</li> </ul> <p>Statement added in Section A.6 which confirms that the technology will be described in detail in each CPA-DD.</p>	<p>Check with Sid</p> <p>No issues found</p>



**A.4.2. Description of a typical small-scale CDM programme activity (CPA)**

A.4.2.1. Is it unambiguously stated which technology or measures are to be employed by the SSC-CPA?		DR	Already covered under question A.4.1.8	No issues found
A.4.2.2. Is the type and category of project activities correctly identified and indicated?	VVS Para.64-69	DR	The proposed PoA will apply the methodology AMS.III.U. The type and category of the PoA has been correctly identified.	No issues found
A.4.2.3. Does the technical design of the project activity reflect current good practices?	VVS Para.64-69	DR	There is no technical specification in the PoA-DD. The proposed PoA i.e. implementation of a cable car mass transit system is a new project. It will be included in CPA DD specific to respective CPA to be included in the proposed POA.  The details of the technical specifications will be covered in each CPA-DD.	No issues found
A.4.2.4. Does the implementation of the project activity require any technology transfer from Annex-I countries to the host country (ies)?	VVS Para.64-69	DR SV	Section A.2 of the PoA-DD mentions that the implementation of the proposed PoA involves a significant technology transfer. The PoA-DD does not clarify if the technology transfer is from an Annex-I country.  The presentation after the starting meeting stated that Doppelmayr is the technology consultant.	No issues found
A.4.2.5. Is the technology implemented by the project activity environmentally safe?	VVS Para.64-69	DR SV	YES, PP submitted ESIA report for the LCCT project. Note here that each CPA will have an ESIA report and as such the POA will not have it.	No issues found
A.4.2.6. Is the information provided in compliance	VVS Para.64-69	DR SV	All the project information provided is found consistent with the observations made during onsite visit and documents submitted for the proposed POA.	No issues found

with actual situation or planning?				
A.4.2.7. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	VVS Para.64-69	DR SV	<p>Section A.2 of the PoA-DD states that the use of cable propelled technology for mass transit has not been used in the host Party Nigeria.</p> <p>In the South of Nigeria (Calabar) there is a cable car installed. It was discussed and confirmed that the cable car there is for tourist purpose to reach a ranch.</p>	No issues found
A.4.2.8. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	VVS Para.64-69	DR SV	No there is no Technology transfer	No Issues
A.4.2.9. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	VVS Para.64-69	DR SV	Since the project activity is first in Nigeria, extensive training is required. Training procedure are mentioned in section C of the POA DD	No issues found
A.4.2.10. Is information available on the demand and requirements for training and maintenance?	VVS Para.64-69	DR SV	Since the project activity is first in Nigeria, extensive training is required. Training procedure are mentioned in section C of the POA DD	No issues found

A.4.2.11. Is a schedule available for the implementation of the project and are there any risks for delays?	VVS Para.64-69	DR SV	PP submitted LCCT project implementation schedule.	CAR #4 Y CAR #4 is closed out.
A.4.2.12. Are there clear and unambiguous eligibility criteria for the inclusion of a SSCCPA into the PoA?	VVS Para.64-69	DR SV	Yes, POA DD clearly mentions eligibility requirements. Section B.2 (part II) of the PoA-DD still mentions the eligibility criteria for the inclusion of the CPA in the PoA. This is till inconsistent with the PoA-DD completion guidelines.	CAR #2 Y CAR #2 is closed out.
A.4.2.13. Does the information provided clearly defined that each CPA has only one host party.	Project Standard version 2.0, EB 70, Annex 2 para 146 & VVS para 64-69.	DR SV	Yes, POA boundary is limited to geographic boundaries of host country Nigeria.	No issues found
A.4.2.14. Is it confirmed by coordinating/management entity that the CPA is neither registered as a CDM project activity nor included in another registered PoA.	Project Standard version 2.0, EB 70, Annex 2 para 150	DR SV	It will be checked by DOE at the time of inclusion of each CPA.	No issues found
<b>A.4.3. Description of how the anthropogenic emissions of GHG by sources are reduced by a SSC-CPA below those that would have occurred in the absence of the registered PoA (assessment and demonstration of additionality of the PoA)</b>				
A.4.3.1. Is it evident and clearly documented that the proposed PoA is a voluntary coordinated action?	VVS Para 159 <u>EB74 Annex05</u> VVS Para.72d/102 EB 74, Annex 5	DR SV	It is stated in Section A.2 of the PoA-DD that the proposed PoA is a voluntary action by the CME.	No issues found
A.4.3.2. Has it been demonstrated that in the absence of CDM	EB 74, Annex 5 para 7	DR SV	Additionality has been demonstrated using the “technological barrier” under para 1(b) of the guidelines for the demonstration of additionality of SSC project activities.	CAR #4 Y CAR #4 is

none of the CPA would occur			<p>“A less technologically advanced alternative” – The Additionality arguments do not state the available alternatives to in order to come to the conclusion about the lower risk due to performance / market share of the tech.</p> <p>CME has withdrawn the description of additionality demonstration aspect at the POA level and in place the new description has been added on additionality demonstration criteria for the CPA to be included for demonstration of additionality at individual CPA level. .</p>	closed out.
A.4.3.3. Are the CPAs included in the PoA all microscale projects	EB 74 Annex 5 para 8	DR SV	Not applicable as the CPAs included in the PoA are small scale projects.	No issues found
A.4.3.4. Are the CPAs included in the PoA under small scale project activities?	EB 74, Annex 5 para 9	DR SV	The CPAs included in the PoA are small scale projects.	No issues found
A.4.3.5. Are the CPAs included in the PoA under large scale project activities?	EB 74 Annex 5 para 10	DR SV	Not applicable as the CPAs included in the PoA are small scale projects.	No issues found
A.4.3.6. Has the PP demonstrated the additionality as per the relevant additionality-related guidelines, tools	EB 74, Annex 5 para 11	DR SV	The proposed PoA is a small scale PoA. The PP has demonstrated additionality using the provision of Standard: Demonstration of additionality, development of eligibility criteria and applications of multiple methodologies for programme of activities, Version 04.0 and “Guidelines on the demonstration of additionality of small-scale project activities” Version 10.0.	CAR #4 Y CAR #4 is closed out.
A.4.3.7. Has the CME included all the eligibility criteria in each CPA design documents?	EB 74, Annex 5 para 11	DR SV	Eligibility criteria consistent with between sections B.2 and B.5 (Part II) of the PoA-DD	CAR #2 Y CAR #2 is closed out.
A.4.3.8. Is the PoA involves combination of technologies /measures/ and /or	EB 74, Annex 5 para 12	DR SV	The proposed PoA applies the methodology AMS.III.U version 1.0. The PP had also given a reference to methodology AMS.I-C in section B.3 of the PoA-DD. It is not clear when this methodology will be applicable. PP removed reference of AMS I.C from he	CL #3 Y CL #3 is closed out.

methodologies?			POA DD.	
A.4.3.9. Is it evident and substantiated that this voluntary coordinated action would not be implemented in the absence of the PoA?	VVS Para.100/98	DR SV	Yes, it is validated that the in absence of the proposed POA, continued usage of private vehicles and transit bus system is the baseline scenario to the POA.	No issues found
A.4.3.10. Is it evident and substantiated that in case the PoA implements a mandatory policy or regulation this would not be enforced otherwise?	VVS Para.108b	DR SV	Not applicable as there is no enforced policy in host country to cause implementation of the activity as confirmed by Local Assessor involved in the POA.	No issues found
A.4.3.11. Is it evident and substantiated that in case the PoA implements a mandatory policy or regulation that is enforced the PoA will lead to a greater level of enforcement?		DR SV	Not applicable as there is no enforced policy in host country to cause implementation of the activity as confirmed by Local Assessor involved in the POA.	No issues found
<b>A.4.4. Eligibility Criteria including Operational, management and monitoring plan for the programme of activities (PoA)</b>				
A.4.4.1. Has the boundary of the CPA being clearly defined for CPA inclusion?	EB 74, Annex 5 Para 16(a)	DR SV	The PP has defined the boundary of the PoA as the geographical boundary of Nigeria. The means of verification of this eligibility criteria would be a map showing the location of the project activity which has to be submitted for each CPA.  This criterion can be verified by confirming the location of the CPA on the map. Hence, this eligibility criterion is verifiable.	No issues found
A.4.4.2. Has the CME included the provisions to avoid	EB 74, Annex 5 Para 16(b)	DR SV	Yes, the CME has included provisions to avoid double counting in the eligibility criteria. The GPS coordinates of the end points of the CPA can be checked for uniqueness.	No issues found

double counting of the emission reduction?			The GPS coordinates can be objectively checked through google maps or a GPS instrument. Hence, this eligibility criterion is verifiable.	
A.4.4.3. Has the CME clearly included the specifications of technology/measure including the level and type of service	EB 74, Annex 5 Para 16(c)	DR SV	The eligibility criteria defined is "The CPA technology is that of cable propelled transit". The technical details will be mentioned in each CPA as stated in the PoA-DD.	<del>Is this criterion verifiable?</del> Check with Sid. ok
A.4.4.4. Has the CME included the conditions to check the start date of the CPA as per the start date definition of CPA	EB 74, Annex 5 Para 16(d)	DR SV	The CME has included the condition to check the start date of the CPA.  The start date of the CPA has to be verified against the CDM-PS. This is ok.  The CME has referred to "start date of validation of the PoA" under the eligibility criteria point (e) in section B.2 of the PoA-DD. This term is not clear. I believe this term should be "start date of PoA" which would meet the requirements of para 162 of the CDM-PS. PP corrected the same thereafter.	CAR #4 Y CAR #4 is closed out.
A.4.4.5. Are there multiple methodologies involved in the POA	EB 74, Annex 5 para 16(e)	DR SV	The PP has mentioned a single eligibility criterion to check if the applicability criteria in the applied methodology are met. The applicability criteria are discussed in section.  Section B.3 (Part I) of the PoA-DD mentions that the applied methodology is AMS.III-U and it also gives reference to "AMS.I-C (when applicable)". It is not clear if only AMS.III-U is applied or AMS.I-C will also be applied? Typo error as per the PP. Corrected it thereafter.	CL #3 Y CL #3 is closed out.
A.4.4.6. Has the CME included conditions for the CPAs to meet the requirements of the latest available Standard of Additionality	EB 74 Annex 5 para 16(f)	DR SV	Additionality is demonstrated at CPA level following requirements of "Guidelines on the demonstration of additionality of small-scale project activities" Version 10.0.	Refer CAR#4
A.4.4.7. Has the CME included the specific requirements of the conditions of local stakeholder and environment impact	EB 74, Annex 5 para 16(g)	DR SV	The PP has stated that all EIA and stakeholder requirements of the Nigerian Government will be respected and has confirmed that an EIA will be included in the CPA before the project goes into operation.  This criterion can be verified by checking the EIA report; and approval. Hence, this	No issues found.



analysis for each CPA			eligibility criterion is verifiable.	
A.4.4.8. Has the CME identified the target group correctly?	EB74, Annex 5 para 16(i)	DR SV	Is this criterion applicable to this PoA? – Not applicable	Check with Sid Not applicable to this project
A.4.4.9. Has the CME correctly provided the sampling plans and followed the correct guidelines/standards of sampling?	EB 74, Annex 5 para 16(j)	DR SV	<p><del>The CME has stated Section B.2 (part I) that “Sampling used in the CPA for passenger survey conforms to the template in the PoA” The CME further states that “CME assures that sampling template is used”. No separate sampling plan has been defined in the PoA-DD.</del></p> <p>Is this sufficient?</p> <p>Appendix 5 of the PoA-DD contains the default survey questionnaire which is present in the Annex of the methodology AMS.III-U. The annex also defines the survey principles to be followed.</p>	CAR #5 Y CAR #5 is closed out.
A.4.4.10. Has the CME included the provisions of check for the micro scale or small scale threshold criteria throughout the crediting period?	EB 74, Annex 5 para 16(k)	DR SV	<p>No such criterion has been included in the eligibility criteria in the Section B.2 (part I) of the PoA-DD.</p> <p>Covered under para 4 applicability criteria in the methodology.</p>	No issues found
A.4.4.11. Has the CME included the provisions of check for debundling in case of each CPA?	EB 74, Annex 5 para 16(l)	DR SV	The CME has included the provision to check for debundling in case of each CPA. The CME has provided a means of verification, but has not mentioned that the debundling will be checked based on the “Guidelines on assessment of debundling for SSC project activities”. This was corrected by the PP and accepted.	Refer CAR#1
A.4.4.12. Has the CME affirmed that funding from Annex I parties, if any, does not result in a diversion of official	EB 74, Annex 5 para 16(h)	DR SV	<p>The CME has included a criterion to check for Annex I donor funding.</p> <p>The project developer in the CPA will state in the CPA the status of donor funding. Hence, this eligibility criterion is verifiable.</p>	No issues found.

development assistance				
A.4.4.13. Is there a clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies made available to the DOE at the time of validation of the PoA	EB 74, Annex 5 para 17	DR SV	As per the description mentioned by the CME in Section C (Part I) of the PoA-DD all responsibilities are of the CME. Roles and responsibilities of personnel have not been defined. As per the PoA standard, the responsibilities of the personnel i.e. a description of their functions is required. No management structure has been defined. Section C of the revised POA now includes the relevant information.	CAR #6 Y CAR #6 is closed out.
A.4.4.14. Are there records of arrangements for training and capacity development for personnel made available to the DOE at the time of validation of the PoA;	EB 74, Annex 5	DR SV	<p>The training and capacity development has been defined to be the role of the CPA.</p> <p>As per the PoA standard para 19(b), "the CME shall develop and implement a management system that includes the following made available to the DOE at the time of validation of the PoA: (b) records of arrangement for training and capacity development for personnel shall be made available to the DOE at the time of validation." As per the above, the record of arrangement for training and capacity development shall be provided to the DOE during validation.</p> <p>Ask for the "record of arrangement for training" during the site visit. What could be an example of "record of arrangement for training"?</p> <p>Section C of the revised POA now includes the relevant information.</p>	CAR #6 Y CAR #6 is closed out.
A.4.4.15. Are there established procedures for technical review of inclusion of CPAs made available to the DOE at the time of validation of the PoA	EB 74, Annex 5	DR SV	As per Section C (Part I) of the PoA-DD, the final CPA will be reviewed by the CME. No procedure for technical review has been defined. Section C of the revised POA now includes the procedure of technical review.	CAR #6 Y CAR #6 is closed out.
A.4.4.16. Is there a procedure to avoid double counting (e.g. to avoid the case of including a new CPA	EB 74, Annex 5	DR SV	As per Section C (Part I) of the PoA-DD, states that "All project activities will have specific GPS coordinates and as the project activities require significant fixed infrastructure, the CME can readily verify their uniqueness."	CAR #6 Y CAR #6 is closed out.

that has already been registered either as a CDM project activity or as a CPA of another PoA)			The CME is correct when it says that the GPS coordinates of the project activities can be verified for their uniqueness. But there is no "procedure" that is detailed here. The PoA standard states "procedure to avoid double counting". How should the term "procedure be interpreted?" PP clarified that the unique ID numbers will be provided to each CPA to be included in the proposed POA.	
A.4.4.17. Records and documentation control process for each CPA under the PoA, made available to the DOE at the time of request for inclusion of the CPA		DR SV	Records and documentation control process has been mentioned under the headings "Overall data collection and collation of the various CPAs" in section C (part I).	NO issues found.
A.4.4.18. Measures for continual improvement of the PoA management made available	EB 74, Annex 5	DR SV	Measures for continual improvement of the PoA management system have not been mentioned. Now added a paragraph titled "Measures for continuous improvements of the PoA management system" in Section C (Part I) of the PoA-DD.	CAR #6 Y CAR #6 is closed out.
A.4.4.19. Is it checked that the PoA document contains provisions that CPAs are to be included in the PoA on the basis of confirmation on the eligibility of CPAs, where applicable undertaking sample-based checks in accordance with the approved guidelines/standard from the Board	EB 74, Annex 5	DR SV	Yes, eligibility criteria are mentioned in section B.5 (part II) of the POA DD.	No issues found

<p>A.4.4.20. If sampling is involved Does the sampling plan present a reasonable approach for obtaining unbiased reliable estimates of the variables?</p>	<p>EB 74 Annex 5 EB74, Annex 6</p>	<p>DR SV</p>	<p><del>Same comment below as in 4.4.9 above</del></p> <p><del>The CME has stated in Section B.2 (part I) that "Sampling used in the CPA for passenger survey conforms to the template in the PoA" The CME further states that "CEM assures that sampling template is used". No separate sampling plan has been defined in the PoA-DD.</del></p> <p><del>Is this sufficient?</del></p> <p>Appendix 5 of the PoA-DD contains the default survey questionnaire which is present in the Annex of the methodology AMS.III-U. The annex also defines the survey principles to be followed.</p>	<p>CAR #5 Y CAR #5 is closed out.</p>
<p>A.4.4.21. Is the population clearly defined, and how well does the proposed approach to developing the sampling frame represent that population?</p>	<p>EB 74 Annex 5 EB74, Annex 6</p>	<p>DR SV</p>	<p><del>Same comment below as in 4.4.9 above</del></p> <p><del>The CME has stated in Section B.2 (part I) that "Sampling used in the CPA for passenger survey conforms to the template in the PoA" The CME further states that "CEM assures that sampling template is used". No separate sampling plan has been defined in the PoA-DD.</del></p> <p><del>Is this sufficient?</del></p> <p>Appendix 5 of the PoA-DD contains the default survey questionnaire which is present in the Annex of the methodology AMS.III-U. The annex also defines the survey principles to be followed.</p>	<p>CAR #5 Y CAR #5 is closed out.</p>
<p>A.4.4.22. Is the proposed sampling approach clear?</p>	<p>EB 74 Annex 5 EB74, Annex 6</p>	<p>DR SV</p>	<p><del>Same comment below as in 4.4.9 above</del></p> <p><del>The CME has stated in Section B.2 (part I) that "Sampling used in the CPA for passenger survey conforms to the template in the PoA" The CME further states that "CEM assures that sampling template is used". No separate sampling plan has been defined in the PoA-DD.</del></p> <p><del>Is this sufficient?</del></p> <p>Appendix 5 of the PoA-DD contains the default survey questionnaire which is present in the Annex of the methodology AMS.III-U. The annex also defines the survey principles to be followed.</p>	<p>CAR #5 Y CAR #5 is closed out.</p>

A.4.4.23. Is the proposed sample size adequate to achieve the minimum confidence/precision requirements? Is the ex ante estimate of the population variance needed for the calculation of the sample size adequately justified	EB 74 Annex 5 EB74, Annex 6	DR SV	<p><del>Same comment below as in 4.4.9 above</del></p> <p><del>The CME has stated in Section B.2 (part I) that "Sampling used in the CPA for passenger survey conforms to the template in the PoA" The CME further states that "CEM assures that sampling template is used". No separate sampling plan has been defined in the PoA-DD.</del></p> <p><del>Is this sufficient?</del></p> <p>Appendix 5 of the PoA-DD contains the default survey questionnaire which is present in the Annex of the methodology AMS.III-U. The annex also defines the survey principles to be followed.</p>	CAR #5 Y CAR #5 is closed out.
A.4.4.24. Is the sample representative?	EB 74 Annex 5 EB74, Annex 6	DR SV	<p><del>Same comment below as in 4.4.9 above</del></p> <p><del>The CME has stated in Section B.2 (part I) that "Sampling used in the CPA for passenger survey conforms to the template in the PoA" The CME further states that "CEM assures that sampling template is used". No separate sampling plan has been defined in the PoA-DD.</del></p> <p><del>Is this sufficient?</del></p> <p>Appendix 5 of the PoA-DD contains the default survey questionnaire which is present in the Annex of the methodology AMS.III-U. The annex also defines the survey principles to be followed.</p>	CAR #5 Y CAR #5 is closed out.
A.4.4.25. Is the data collection/measurement method likely to provide reliable data given the nature of the parameters of interest and project, or is it subject to measurement errors?	EB 74 Annex 5 EB74, Annex 6	DR SV	<p><del>Same comment below as in 4.4.9 above</del></p> <p><del>The CME has stated in Section B.2 (part I) that "Sampling used in the CPA for passenger survey conforms to the template in the PoA" The CME further states that "CEM assures that sampling template is used". No separate sampling plan has been defined in the PoA-DD.</del></p> <p><del>Is this sufficient?</del></p> <p>Appendix 5 of the PoA-DD contains the default survey questionnaire which is present in the Annex of the methodology AMS.III-U. The annex also defines the survey principles to be followed.</p>	CAR #5 Y CAR #5 is closed out.

A.4.4.26. Are the procedures for the data measurements well defined and do they adequately provide for minimizing non-sampling errors?	EB 74 Annex 5 EB74, Annex 6	DR SV	<p><del>Same comment below as in 4.4.9 above</del></p> <p><del>The CME has stated in Section B.2 (part I) that "Sampling used in the CPA for passenger survey conforms to the template in the PoA" The CME further states that "CEM assures that sampling template is used". No separate sampling plan has been defined in the PoA-DD.</del></p> <p><del>Is this sufficient?</del></p> <p>Appendix 5 of the PoA-DD contains the default survey questionnaire which is present in the Annex of the methodology AMS.III-U. The annex also defines the survey principles to be followed.</p>	CAR #5 Y CAR #5 is closed out.
A.4.4.27. Does the frame contain the information necessary to implement the sampling approach?	EB 74 Annex 5 EB74, Annex 6	DR SV	<p><del>Same comment below as in 4.4.9 above</del></p> <p><del>The CME has stated in Section B.2 (part I) that "Sampling used in the CPA for passenger survey conforms to the template in the PoA" The CME further states that "CEM assures that sampling template is used". No separate sampling plan has been defined in the PoA-DD.</del></p> <p><del>Is this sufficient?</del></p> <p>Appendix 5 of the PoA-DD contains the default survey questionnaire which is present in the Annex of the methodology AMS.III-U. The annex also defines the survey principles to be followed.</p>	CAR #5 Y CAR #5 is closed out.
A.4.4.28. In case the coordinating/managing entity opts for a verification method that does not use sampling but verifies each CPA, does the monitoring plan provide a transparent system to ensure that no double accounting occurs and that the status of verification can be determined any time for each	EB 74 Annex 5 EB74, Annex 6	DR SV	<p>Appendix 5 of the PoA-DD contains the default survey questionnaire which is present in the Annex of the methodology AMS.III-U. The annex also defines the survey principles to be followed.</p>	CAR #5 Y CAR #5 is closed out.

CPA?				
A.4.4.29. If the version of methodology/ies applied by the PoA is revised or replaced, subsequent to being placed on hold then :Are the eligibility criteria to the requirements of the revised or new methodology/ies with immediate effect and include them in a new version of the PoA DD	EB 74 Annex 5	DR SV	The proposed PoA presently applies the methodology AMS.III-U Version 1. Applicability criteria of the applied methodology are met.	No issues found
<b>A.4.5. Public funding of the small-scale project activity</b>				
A.4.5.1. Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?	PoA-DD A.4.5	DR SV	In Section A.7 (part I) of the PoA-DD, the CME has declared that there is no public funding for the proposed PoA. A declaration to this effect has been signed by the CME and attached in appendix 2 of the PoA-DD.  PP submitted Letter of declaration from Ropeways Transport Limited dated 22/10/2013 for LCCT Project confirming no public involvement in the proposed project activity.	<del>Site Visit</del>  NO issues found
A.4.5.2. Is all information provided consistent with the details given in remaining sections of the PoA-DD (in particular annex 2)?	PoA-DD A.4.5	DR SV	Yes. The details provided in Section A.7 (part I) and Appendix 2 of the PoA-DD are consistent. <del>Pending closure of question A.4.5.1</del> PP submitted Letter of declaration from Ropeways Transport Limited dated 22/10/2013 for LCCT Project confirming no public involvement in the proposed project activity.	<del>Pending closure of question A.4.5.1</del> NO issues found
A.4.5.3. In case of public funding from Annex I	PoA-DD A.4.5	DR		<del>Pending closure of</del>



Parties is it confirmed that such funding does not result in a diversion of official development assistance		SV	This is not applicable in case no public funding is confirmed under question A.4.5.1 <del>Pending closure of question A.4.5.1</del> PP submitted Letter of declaration from Ropeways Transport Limited dated 22/10/2013 for LCCT Project confirming no public involvement in the proposed project activity.	<del>question A.4.5.1</del>  NO issues found
<b>B. Duration of the programme of activities</b>				
B.1. Starting date of the programme of activities				
B.1.1. Is the programme's starting date clearly defined and reasonable?	VVS Para. 194 PoA-DD Section D	DR SV	The start date of the PoA was mentioned as 01/01/2015 in Section D.1 of the PoA-DD (part I).  As per the guidelines for completing the PoA-DD "Describe how the start date was determined" – this detail is not present in this section. The CME is also required to submit evidence for the start date.  CME has included the start date of this PoA is the date of publication of the PoA-DD for Global Stakeholder Consultation – 29/10/2013, this was found to be in line with Glossary of CDM Terms.	CAR #4 Y CAR #4 is closed out.
B.1.2. Is it clear from the information that the start date of any CPA on or after the start date of the PoA.	VVS Para. 193 PoA-DD Section D	DR SV	Yes, it is confirmed that the start date of CPA is after the start date of POA.	No issues found.
B.2. Length of the programme of activities (PoA)				
B.2.1. Is the assumed length of the PoA clearly defined by the coordinating managing entity and reasonable (max 28 years)?	VVS Para. 197 PoA-DD Section D	DR SV	The CME has stated the length of the PoA as 28 years. This is the maximum possible duration as per paragraph 160 of the CDM-PS.	NO issues found.
B.2.2. Does the project's operational lifetime exceed the crediting	VVS Para. 197	DR SV	The expected operational lifetime of the project activity is 30 years which exceed 21 years crediting period (7 years renewable two times).	NO issues found.

period.	PoA-DD Section D			
<b>C. Environmental Analysis</b>				
<b>C.1. Definition of the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken:</b>				
C.1.1. Is it defined whether the environmental analysis takes place at PoA or CPA level?	VVS Para. 134/135/199/200 PoA-DD Section E	DR SV	Section E.1 (part I) of the PoA-DD states that EIA will be done at the CPA level.	No issues found.
C.1.2. Is the choice whether the environmental analysis takes place at PoA or CPA level justified?	VVS Para. 134/135/199 PoA-DD Section E	DR SV	<p>Section E.1 (part I) of the PoA-DD states that the EIA Act No. 86 of 1992 mandates that public or private sector of the economy shall not undertake or embark or authorize projects or activities without prior consideration, at the early stage, of their environmental effects. Hence carrying out the EIA at the CPA level is justified.</p> <p>Check with Dominic</p> <ul style="list-style-type: none"> <li>Is EIA Act No. 86 of 1992 the latest? - Yes</li> <li>Does this type of project activity require an EIA at the construction phase only or during the operation phase also? - Yes</li> </ul> <p>During the operations phase it is more like an audit by government certified agencies.</p> <p>OK</p>	<p><del>Check with Dominic</del></p> <p>No issues found.</p>
<b>C.2. Documentation on the analysis of the environmental impacts of the PoA, including transboundary impacts:</b>				
C.2.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	VVS Para. 134/135/199 PoA-DD Section E	DR SV	<p>EIA Act No. 86 of 1992 mandated the requirements for carrying out an EIA in Nigeria. The EIA will be carried out at the CPA level as per Section E.1.</p> <p><del>Pending closure of question C.1.2.</del></p> <p>OK</p>	<p><del>Pending closure of question C.1.2.</del></p> <p>No issues found.</p>
C.2.2. Has the analysis of the environmental impacts of the project activity been sufficiently described?	VVS Para. 134/135/199 PoA-DD Section E	DR SV	The CME has mentioned generic information about the areas that can be covered under the EIA required by the Nigerian government and the possible impacts that can be included.	No issues found.
C.2.3. Will the project create	VVS Para.	DR	The EIA will be carried out at the CPA level. Hence not applicable.	N/A

any adverse environmental effects?	134/135/199 PoA-DD Section E	SV		
C.2.4. Were trans-boundary environmental impacts identified in the analysis?	VVS Para. 134/135/199 PoA-DD Section E	DR SV	The EIA will be carried out at the CPA level. Hence not applicable.	N/A
<b>C.3. Please state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA of the PoA:</b>				
C.3.1. Have the identified environmental impacts been addressed in the project design sufficiently?	VVS Para. 134/135/199/200 PoA-DD Section E	DR SV	The EIA will be carried out at the CPA level. Hence not applicable.	N/A
C.3.2. Does the project comply with environmental legislation in the host country?	VVS Para. 134/135/199 PoA-DD Section E	DR SV	The EIA will be carried out at the CPA level. Hence not applicable.	N/A
C.3.1. Is, per host country laws/regulations, an environmental impact assessment necessary for a typical CPA?	VVS Para. 134/135/199 PoA-DD Section E	DR SV	Section E.1 (part I) of the PoA-DD states that the EIA Act No. 86 of 1992 mandates that public or private sector of the economy shall not undertake or embark or authorize projects or activities without prior consideration, at the early stage, of their environmental effects. Hence as per this statement each CPA would require an EIA.	<del>Check with Dominic</del> ok
<b>D. Stakeholders' comments</b>				
<b>D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice:</b>				
D.1.1. Is there a clear statement whether the stakeholder comments will be invited at PoA or CPA level?	VVS Para. 139a PoA-DD Section F	DR SV	Section F.1 of the PoA-DD states that the local stakeholder consultation process will be carried out at the CPA level to the degree required by the Nigerian Government Agencies	No issues found
D.1.2. Is the choice justified	VVS Para.	DR	POA DD includes justification on why the stakeholder consultation will be carried out at	CAR #2 Y

in a clear and reasonable manner?	139a PoA-DD Section F	SV	the CPA level.	CAR #2 is closed out.
D.1.3. If the stakeholder comments will be invited at PoA level, is there sufficient information provided, on how comments by local stakeholders were invited?	VVS Para. 139 PoA-DD Section F	DR SV	Not applicable, since stakeholder comments will be invited at the CPA level.	N/A
D.1.4. If the stakeholder comments will be invited at PoA level, is there a summary of the contents?	VVS Para. 139b PoA-DD Section F	DR SV	Not applicable, since stakeholder comments will be invited at the CPA level.	N/A
D.1.5. If the stakeholder comments will be invited at PoA level, is there sufficient information provided, on how due account was taken of any comments received?	VVS Para. 139c PoA-DD Section F	DR SV	Not applicable, since stakeholder comments will be invited at the CPA level.	N/A
<b>D.2. Brief description how comments by local stakeholders have been invited and compiled</b>				
D.2.1. Have relevant stakeholders been consulted?	VVS Para. 139a PoA-DD Section F	DR SV	Not applicable, since stakeholder comments will be invited at the CPA level.	N/A
D.2.2. Have appropriate media been used to invite comments by local stakeholders?	VVS Para. 139a PoA-DD Section F	DR SV	Not applicable, since stakeholder comments will be invited at the CPA level.	N/A
D.2.3. If a stakeholder consultation process is required by	VVS Para. 139b	DR SV	Not applicable, since stakeholder comments will be invited at the CPA level.	N/A

regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	PoA-DD Section F			
D.2.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	VVS Para. 139b/c PoA-DD Section F	DR SV	Not applicable, since stakeholder comments will be invited at the CPA level.	N/A
<b>D.3. Summary of the comments received</b>				
D.3.1. Is a summary of the received stakeholder comments provided?	VVS Para. 139b PoA-DD Section F	DR SV	Not applicable, since stakeholder comments will be invited at the CPA level.	N/A
<b>D.4. Report on how due account was taken of any comments received</b>				
D.4.1. Has due account been taken of any stakeholder comments received?	VVS Para. 139c PoA-DD Section F	DR SV	Not applicable, since stakeholder comments will be invited at the CPA level.	N/A
<b>E. Application of a baseline and monitoring methodology to a typical SSC-CPA</b>				
<b>E.1. Title and reference of the approved SSC baseline and monitoring methodology applied to SSC-CPA included in the PoA</b>				
E.1.1. Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	VVS Para. 72b.86/87/89/92 PoA-DD section B.3 EB65 Annex03	DR SV	The selected methodology to be applied is AMS.III-U Version 1.0. title: "Cable Cars for Mass Rapid Transit System (MRTS)"  The methodology no.; version and title have been correctly mentioned in Section B.1 (part II).	No issues found

E.1.2. Is the applied version the most recent one and / or is this version still applicable?	VVS Para.81/89/92/90/91 PoA-DD section B.3	DR SV	The Applied version of the methodology is the most recent version.	No issues found
E.1.3. Is the applied SSC methodology approved by the board, for use in PoA?	VVS Para.92/102 PoA-DD section B.3	DR SV	As per the guidelines for completing the PoA-DD Section B.1 (part II) "Confirm that the selected methodology (ies) is (are) approved for application to CPAs under POAs by the board." This has been confirmed in the PoA-DD.	No issues found.
E.1.4. Is there any specific guidance and or clarification provided by the board on this methodology/tool? If yes, is this correctly applied	VVS Para.92/102 PoA-DD section B	DR SV	Not Applicable	NA
<b>E.2. Justification of the choice of the methodology and why it is applicable to a SSC-CPA</b>				
E.2.1. Is the applied methodology considered the most appropriate one?	VVS Para.73	DR SV	The proposed PoA intends to implement CPAs that apply technologies that conform to the applied methodology AMS.III-U. Hence this methodology is considered to be the most appropriate.	No issues found.
E.2.2. Does the SSC methodology account for leakage in the context of a SSC-CPA?	VVS Para.74	DR SV	Leakage is accounted in the applied methodology and it has been considered in para 29 of the methodology.	No issues found.
E.2.3. Is there application of multiple small-scale (SSC) CDM methodologies	EB65 Annex03	DR SV	No. The CPAs will apply a single methodology only.	No issues found.
E.2.4. Is the discussion in the PoA-DD in conformance with all applicability criteria of the applied methodology?	VVS Para.74-76,77 PoA-DD section B	DR SV	Section B.2 (part II) of the PoA-DD tables the eligibility criteria for the inclusion of the CPA in the PoA. This is inconsistent with the PoA-DD completion guidelines. Section B.2 should justify the choice of the selected methodology by showing that each generic CPA meets each applicability conditions of the methodology.	CAR #4 Y CAR #4 is closed out.

### E.3. Description of the sources and gases included in the SSC-CPA boundary

E.3.1. Does the SSC-CPA boundary include the physical and geographical location where the programme activities take place ?	EB61 Anne21	DR SV	The CPA boundary has been defined as the geographical area of the trips of passengers using the cable car. "As electricity could be sourced from an electricity grid for the operation of the transport system, the project boundary also includes the power plants physically connected to the grid supplying power to the project."	No issues found.
E.3.2. Are all sources and gases within the boundary considered in a clear manner?		DR SV	The CME has mentioned the sources and gases within the boundary in the table in section B.3 (part II).	No issues found.
E.3.3. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PoA-DD?		DR SV	The POA is limited to geo-graphical boundary of host country Nigeria.	No issues found.
E.3.4. Are the project's geographical boundaries and the project's system boundaries (components and facilities used to mitigate GHGs) clearly defined?	VVS Para.83-85	DR SV	The CPA boundary has been defined as the geographical area of the trips of passengers using the cable car, in section B.3. It further states that "As electricity could be sourced from an electricity grid for the operation of the transport system, the project boundary also includes the power plants physically connected to the grid supplying power to the project." This is in line with the requirements of paragraph 6 of the applied methodology.	No issues found.

### E.4. Description of how the baseline scenario is identified and description of the identified baseline scenario:

E.4.1. Have all technically feasible baseline scenario alternatives to the PoA been identified and discussed by the PoA-DD? Why can this list be considered as being complete?	VVS Para.72b.87/89/9 2	DR SV	<p>The CME has mentioned in Section B.4 (part II) of the PoA-DD that use of small and medium sized buses using diesel and gas for fuels is the base line scenario.</p> <p>The CME has not defined any list of alternatives from which this particular alternative has been chosen as the baseline. How is this in line with paragraph 11 of the methodology?</p> <p>The details in section B.4 of the PoA-DD do not meet the guidelines from completion of the PoA-DD... "Explain how the baseline scenario is established in accordance with the selected methodology and...."</p>	CAR #4 Y CAR #4 is closed out.
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			PP now justified the appropriateness of use of small and medium sized buses using diesel and gas for fuels is the base line scenario and it is accepted.	
E.4.2. Does project identify correctly and exclude those options not in line with regulatory or legal requirements?	VVS Para.72b.87/89/92	DR SV	<del>Pending closure of question E.4.1</del> OK	CAR #4 Y CAR #4 is closed out.
E.4.3. Have applicable regulatory or legal requirements been identified?	VVS Para.72b.87/89/92	DR SV	<del>Pending closure of question E.4.1</del> OK	CAR #4 Y CAR #4 is closed out.
E.4.4. Does the PoA-DD identify the most likely baseline scenario in absence of the project activity?	VVS Para.72b/97	DR SV	The PoA does mention the baseline scenario in absence of the project activity. But the procedure for identification of the same is not clear.  <del>Pending closure of question E.4.1</del> OK	CAR #4 Y CAR #4 is closed out.
E.4.5. Is this identification supported by official and/or verifiable documents (e.g. studies, web pages, certificates, etc)?	VVS Para.97	DR SV	<del>Pending closure of question E.4.1</del> OK	CAR #4 Y CAR #4 is closed out.
E.4.6. Is the identified baseline scenario in line with regulatory or legal requirements?	VVS Para.72b.87/89/92	DR SV	<del>Pending closure of question E.4.1</del> OK	CAR #4 Y CAR #4 is closed out.
<b>E.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of a typical SSC-CPA, included in a registered PoA (assessment and demonstration of additionality):</b>				
E.5.1. Are the key criteria and data for assessing additionality of a SC-CPA that is to be included into the PoA clearly and	VVS Para 158 EB 74 Annex 5	DR SV	The CME has demonstrated additionality using "Technological Barrier" as mentioned in the "Guidelines on the demonstration of additionality of small-scale project activities" Version 9.0.  Additionality has been demonstrated under section B.1 (part I) of the PoA-DD using a	CAR #4 Y CAR #4 is closed out.

unambiguously stated?			<p>subjective argument only. No objective evidence has been presented to support the additionality arguments. E.g.</p> <ul style="list-style-type: none"> <li>“mass transit is traditionally provided by buses” – Is there any study / statistics to substantiate this? The only travel infrastructure in Central Lagos is road – Is there any study / statistics to substantiate this?</li> </ul> <p>No cable car technology is currently used for mass transit in Nigeria The CME has included an additionality related criterion in the eligibility criteria (Question A.4.4.6) for CPA inclusion. The Section B.2 (part I) of the mentions that additionality for the CPA will be demonstrated through the additionality arguments for the PoA i.e. Additionality has been fixed at the PoA level. Is this approach correct? Yes</p>	
E.5.2. Are the key criteria and data for assessing additionality of a SSC-CPA that is to be included into the PoA based on the additionality assessment in section E.5.1 of the PoA-DD?	EB 74 Annex 5	DR SV	<p><del>Pending closure of question E.5.1</del></p> <p>PP demonstrated technological barrier as additionality criteria for the proposed POA.</p>	CAR #4 Y CAR #4 is closed out.
E.5.3. Is the choice of the criteria justified, based on the analysis in section E.5.1 of the PoA-DD?	VVS Para.100/98	DR SV	<p><del>Pending closure of question E.5.1</del></p> <p>PP demonstrated technological barrier as additionality criteria for the proposed POA.</p>	CAR #4 Y CAR #4 is closed out.
E.5.4. Does it become evident how these criteria would be applied to assess the additionality of a typical CPA at the time of inclusion?	VVS Para. 118	DR SV	<p><del>Pending closure of question E.5.1</del></p> <p>PP demonstrated technological barrier as additionality criteria for the proposed POA.</p>	CAR #4 Y CAR #4 is closed out.
E.5.5. Is this information incorporated into the specific CDM-SSC-CPA-DD (“real case”)?		DR SV	<p><del>Pending closure of question E.5.1</del></p> <p>PP demonstrated technological barrier as additionality criteria for the proposed POA.</p>	CAR #4 Y CAR #4 is closed out.

E.5.6. If the starting date of the programme activity is before the date of validation, is evidence available to prove that incentive from the CDM was seriously considered in the decision to proceed with the programme activity?	VVS Para.108	DR SV	<del>Pending closure of question B.1.1</del> Yes, the start date of the CPA is after the start date of the POA.	No issues found.
E.5.7. Is a complete list of barriers developed that prevents the project activity to occur?	VVS Para 127a EB 50 Annex 13	DR SV	<del>Pending closure of question E.5.1</del> PP demonstrated technology barrier as additionality criteria for the proposed POA.	No issues found.
E.5.8. Does this list include at least one of the following barriers?	VVS Para. 124	DR SV	<del>Pending closure of question E.5.1</del> PP demonstrated technology barrier as additionality criteria for the proposed POA.	No issues found.
E.5.9. Does the discussion sufficiently take into account relevant national and/or sectoral policies?	VVS Para. 126a/b	DR SV	<del>Pending closure of question E.5.1</del> PP demonstrated technology barrier as additionality criteria for the proposed POA and it is accepted based on the fact that it is first in the host country Nigeria.	No issues found.
E.5.10. Is transparent and documented evidence provided on the existence and significance of these barriers?	VVS Para. 126a/b	DR SV	<del>Pending closure of question E.5.1</del> PP demonstrated technology barrier as additionality criteria for the proposed POA and it is accepted based on the fact that it is first in the host country Nigeria.	No issues found.
E.5.11. Is it appropriately explained how the approval of the project activity will help to overcome the identified barriers?	VVS Para. 126a/b	DR SV	<del>Pending closure of question E.5.1</del> PP demonstrated technology barrier as additionality criteria for the proposed POA and it is accepted based on the fact that it is first in the host country Nigeria.	No issues found.

## E.6. Estimation of Emission reductions of a CPA

### E.6.1. Explanation of methodological choices, provided in the approved baseline and monitoring methodology applied, selected for a typical CPA

E.6.1.1. Is it explained how the procedures provided in the methodology are applied?	VVS Para. 74/75/76	DR SV	The procedures provided in the methodology have been applied as described in section B.6.1 (part II). The description is consistent with the methodology.	No issues found
E.6.1.2. Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?	VVS Para. 97	DR SV	The procedures provided in the methodology have been applied as described in section B.6.1 (part II). The description is consistent with the methodology.	No issues found
E.6.1.3. Where there is an option between different equations or parameters, has the methodological choices for the project been explained, have they been properly justified and are they correct?	VVS Para.95,96	DR SV	The procedures provided in the methodology have been applied as described in section B.6.1 (part II). The description is consistent with the methodology.	No issues found

### E.6.2. Equations, including fixed parametric values, to be used for calculation of emission reductions of a SSC-CPA:

E.6.2.1. Are the formulae required for the determination of emission reductions correctly presented, enabling a complete identification of parameters to be used and / or	VVS Para. 96	DR SV	The formulae required for the determination of emission reductions have been correctly presented in section B.6.1 (part II) of the PoA-DD. The formulae are consistent with the methodology.	No issues found
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monitored?				
E.6.2.2. Are the equations, including fixed parametric values, to be used for calculation of emission reductions of a SSC-CPA, completely presented?	VVS Para. 96	DR SV	The equations used for the calculation of emission reductions have been completely presented in section B.6.1 (part II) of the PoA –DD. Section B.6.3 (part II) gives the ex-ante calculations of emission reductions.	CAR #7 Y CAR #7 is closed out.
<b>E.6.3. Data and parameters that are to be reported in CDM-SSC-CPA-DD form</b>				
E.6.3.1. Is the list of parameters presented in section considered to be complete with regard to the requirements of the applied methodology?	VVS Para. 99/100	DR SV	For comments please refer section B.6.2 of the PoA-DD (PDF document) Clarifications discussed with the client and most of the comments were closed out. As per the parameter EF <sub>Grid</sub> the detailed calculation of the emission factor is mentioned in Appendix 4 of the PoA-DD. There is no Appendix 4 in the PoA-DD nor is the calculations mentioned in the PoA-DD. Request the PP to submit the excel spreadsheet indicate the EF calculations. Excel sheet submitted during SV. The aspects have been addressed in the POA-DD and thus accepted.	No issues found
E.6.3.2. Is all the data derived from official data sources or replicable records and have these been correctly quoted?	VVS Para. 97-100.	DR SV	<del>Pending closure of question E.6.3.1</del>  OK	No issues found
E.6.3.3. Is all the data appropriate and correctly applied to the CDM PoA-DD	VVS Para. 97-100.	DR SV	<del>Pending closure of question E.6.3.1</del>  OK	No issues found
<b>E.7. Application of the monitoring methodology and description of the monitoring plan</b>				
<b>E.7.1. Data and parameters to be monitored by each SSC-CPA</b>				
E.7.1.1. Is the list of parameters	VVS Para 132a	DR SV	The list of parameter to be monitored by a CPA is presented in Section B.7.1 (part II) of the PoA-DD. See comments in Section B.7.1 of the PoA-DD (PDF document).	CAR #2 Y

presented inconsidered to be section B.7.1 considered to be complete with regard to the requirements of the applied methodology?			Check – some columns in Section B.7.2 have been left blank and which are now corrected.	CAR #2 is closed out.
E.7.1.2. Does the monitoring methodology apply consistently the choice of the option selected for monitoring of emissions?		DR SV	<del>Pending closure of question E.7.1.1</del> Applied methodology AMS III.U version 01 correctly followed to determine monitoring plan for the proposed POA.	No issues found
<b>E.7.2. Description of the monitoring plan for a SSC-CPA</b>				
E.7.2.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	VVS Para. 132b	DR SV	Operational and management structure along with roles and responsibilities are clearly defined in section C of the POA DD	No issues found.
E.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	VVS Para. 132a-b EB61 Annex 21	DR SV	<del>Pending closure of E.7.2.1</del> Operational and management structure along with roles and responsibilities are clearly defined in section C of the POA DD	No issues found.
E.7.2.3. Does the monitoring plan provide current good monitoring practice?	VVS Para. 132	DR SV	<del>Pending closure of E.7.2.1</del> The monitoring plan indicates good monitoring practices.	No issues found.
If applicable: Does annex 4 provide useful information	VVS Para. 132a-b EB61 Annex 21	DR SV	<del>Pending closure of E.7.2.1</del> The monitoring plan gives a better understanding of the envisioned monitoring	No issues found.

enabling a better understanding of the envisioned monitoring provisions?			provisions.	
<b>E.8. Date of completion of the application of the baseline study and monitoring methodology and the name of the responsible person(s)/entity(ies)</b>				
E.8.1. Is there any indication of a date when the baseline was determined?	VVS Para. 123a-b	DR SV	Not Applicable	No issues found.
E.8.2. Has dd/mm/yyyy format been used to indicate the date?		DR SV	Not Applicable	No issues found.
E.8.3. Is this consistent with the time line of the PoA-DD history?		DR SV	Not Applicable	No issues found.
E.8.4. Is the information on the person(s) / entity (ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?		DR SV	Not Applicable	No issues found.
E.8.5. Is information provided whether this person / entity is also considered a project participant?		DR SV	Not Applicable	No issues found.



### A.3 Annex 3: Overview of Findings

#### Findings Overview Summary

	CARs	CLs	FARs
Total Number raised	6	1	1

Date:	04/12/2013		Raised by:	Assessment Team	
Type:	CAR	Number:	#1	Reference:	PoA-DD checklist

#### Lead Assessor Comment:

1. Table 1 point 1 - Section G (part I) of the PoA states that the Host Government has been informed and the letter of approval has been issued by the Nigerian Office of the Designated National Authority. During the site visit it was, identified that the LoA has not yet been issued. Please clarify the statement in section G. Please submit documentary evidence to support the statement "host government has been informed" and the LoA.
2. The letter of Authorization for the CME was not submitted during the site visit. Please submit the same.
3. The MoC was not submitted during the site visit. Please submit the same.

#### Project Participant Response:

Date: 24/02/2014

1. The statement in section G has been revised. The Host government has been informed, site visit has been conducted and letter of authorization for Ropeways Transport Limited as the CME, Letter of Approval for the PoA and first CPA has been requested from the Nigerian DNA. The LoA has been approved and attached.
2. The letter of authorization for the CME has been requested from the Nigerian DNA.
3. The MoC now completed and attached as part of the supporting documents to the DOE.

#### Documentation Provided by Project Participant:

LoA and MoC

#### Information Verified by Lead Assessor:

Letter of Approval with Ref No. FMENV/DCC/285/I dated 21/02/2014 issued by the Federal Ministry of Environment, Nigeria

MoC form

The revised PoA-DD Version 2 dated 24/02/2014 has been checked for the revisions made by the PP

#### Reasoning for not Acceptance or Acceptance and Close Out:

Date: 08/05/2014

1. The PP has revised the statement in section G (Part I) of the PoA-DD and has submitted the LoA issued by Nigeria. The LoA satisfies the requirements of paragraphs 39 to 41 of the VVS version 6. Hence accepted and closed out.
2. The PP has clarified that the letter of authorization for the CME has been requested from the Nigerian DNA. Hence open.
3. The PP has submitted the filled MoC form. Page 3 of the MoC form is missing. Annex 1 of the MoC form has not been filled and submitted. Please clarify. Hence open.

CAR #1 is open

#### Acceptance and Close out by Lead Assessor: Open

Date: 08/05/2014

#### Project Participant Response:

Date: 27/06/2014

2. Letter of authorization for the CME:

3. The PP has updated the MoC form and also added the missing pages. The updated MoC now included in the submission to the DOE.

#### Documentation Provided by Project Participant:

Letter of Authorization dated 28/06/2014 (Ref. No. FMENV/DCC/285/1) from Federal Ministry of Environment  
MOC dated 07/02/2014

<b>Information Verified by Lead Assessor:</b>	
Letter of Authorization dated 28/06/2014 (Ref. No. FMENV/DCC/285/1) from Federal Ministry of Environment is checked for appropriateness of participation authorization of the project participant.	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 07/07/2014 Reopen: 12/09/2014
<p>PP submitted letter of Authorization dated 28/06/2014 (Ref. No. FMENV/DCC/285/1) from Federal Ministry of Environment which clearly authorizes participation of project participant i.e. Ropeways Transport Limited in the Programme of Activities. This is found to be appropriate and it is accepted.</p> <p>PP submitted MOC dated 07/02/2014 appropriately filled and it is found to be appropriate; hence it is accepted.</p> <p>PP is requested to clarify the appropriateness of POA-DD template used for the proposed POA in line with latest version of the template available on <a href="http://cdm.unfccc.int/Reference/PDDs_Forms/index.html">http://cdm.unfccc.int/Reference/PDDs_Forms/index.html</a>.</p> <p>PP is requested to mention complete references (along with reference number and dates) of all the documents referred throughout the POA DD.</p> <p>Thus CAR #1 is Open.</p>	
<b>Project Participant Response:</b>	<b>Date:</b> 17/09/2014
<p>The PP has updated the POA-DD template used for the proposed POA to the latest version of the template available on <a href="http://cdm.unfccc.int/Reference/PDDs_Forms/index.html">http://cdm.unfccc.int/Reference/PDDs_Forms/index.html</a></p> <p>All references along with reference number and date have been added by the PP throughout the POA-DD document.</p>	
<b>Documentation Provided by Project Participant:</b>	
Revised PoA-DD attached	
<b>Information Verified by Lead Assessor:</b>	
Revised POA DD version 05 dated 19/09/2014 is checked for appropriateness of POA DD template used for the project activity and document references mentioned throughout the POA DD	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 06/10/2014
<p>PP submitted revised POA DD version 05 dated 19/09/2014 with latest version of POA DD template, i.e. version 3.0 available on <a href="http://cdm.unfccc.int/Reference/PDDs_Forms/index.html">http://cdm.unfccc.int/Reference/PDDs_Forms/index.html</a>. This is found to be appropriate and it is accepted.</p> <p>Revised POA DD version 05 dated 19/09/2014 now includes appropriate references in the POA DD. This is found to be appropriate and it is accepted.</p> <p><b>MOC:</b></p> <p>Please clarify that why the phone number contained in the MoC (pages 2 and 5) for Dapo Olumide is not consistent with the number provided in Appendix 1 of both the CPA-DD or the PoA-DD.</p> <p><b>PoA-DD:</b></p> <ul style="list-style-type: none"> <li>- Page 5 footnote 7: Please clarify why the link provided is for the old version of the standard (ver 02.1) whereas the main body of the PoA-DD refers to version 3 of the standard.</li> <li>- Page 11, section B.1: Please clarify why the version numbers of the tool is not included.</li> <li>- Page 17: Please clarify why under the header "Project emissions", the 2<sup>nd</sup> para: the second tool mentioned an old version number (02.2.1) but the meth refers to version 04.0 of this tool.</li> <li>- Page 22, parameter EF<sub>grid</sub>: Please clarify why the version number of the tool is not included</li> <li>- Page 22, parameter EF<sub>grid</sub> and parameter EF<sub>off-grid</sub>: states "see Annex 4". There is no annex 4 but there is <u>appendix</u> 4. Please clarify this inconsistency</li> <li>- All the headers of the appendices seem to have been tampered with and do not match the template (size of font). Please clarify how this is consistent with the PoA-DD template guidelines.</li> <li>- Appendix 1: in section B.4, Carbon Limits Nigeria have been listed as responsible to prepare the POA documentation, therefore they should be appearing in appendix 1 too. Please clarify why this information is not provided in appendix 1.</li> <li>- Page 40, under the header "Emission factor of the captive generator: the 1<sup>st</sup> para; the tool title quoted was found to be inconsistent with the actual title of the tool.</li> <li>- Page 47: document history table has an 'error' message. Please clarify.</li> </ul>	

CAR01 remains open.	
<b>Acceptance and Close out by Lead Assessor: Open</b>	<b>Date: 30/12/2014</b>
<b>Project Participant Response:</b>	<b>Date: 30/12/2014</b>
<p><b>MOC:</b>  The phone number contained in the MoC (pages 2 and 5) for Dapo Olumide is now consistent with the number provided in Appendix 1 of both the CPA-DD and the PoA-DD.</p> <p><b>PoA-DD:</b></p> <ul style="list-style-type: none"> <li>- Page 5 footnote 7: The link provided now has the same version number as the main body of the PoA-DD -- version 3 of the standard.</li> <li>- Page 11, section B.1: The version numbers of the tool is now included.</li> <li>- Page 17: The version number now consistent with that in the meth.</li> <li>- Page 22, parameter EF<sub>g</sub>: PP now have included the version number of the tool is not included</li> <li>- Page 22, parameter EF<sub>grid</sub> and parameter EF<sub>off-grid</sub>: PP has now revised "see Annex 4" to <u>appendix 4</u>.</li> <li>- The PP realised the template has font 16 and it has used same font size for the headers of the appendices as per the PoA-DD template guidelines.</li> <li>- Appendix 1: As stated in section B.4, Carbon Limits Nigeria have now been listed as responsible to prepare the POA documentation in appendix 1 too.</li> <li>- Page 40, under the header "Emission factor of the captive generator: the title of the tool as stated in the 1<sup>st</sup> paragraph is now revised and consistent with the actual title of the tool.</li> <li>- Page 47: PP does not note any error message on Page 45 in the version we reviewed and we have made clean copies of same</li> </ul>	
<b>Documentation Provided by Project Participant:</b>	
Revised POA-DD, version 8 dated 30/12/2014	
<b>Information Verified by Lead Assessor:</b>	
Revised POA-DD, version 8 dated 30/12/2014 (PP has not updated the version of the document and only updated the date of the document due to editorial changes, SGS considered this as version 8 of POA DD dated 30/12/2014)	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date: 30/12/2014</b>
<p><b>MOC:</b>  The contact details have now been made consistent in the revised POA DD, version 8 dated 30/12/2014 with that contained in MOC (page 2 and 5) and hence is accepted.</p> <p><b>POA_DD:</b></p> <ol style="list-style-type: none"> <li>1. Footnote 7 in page 5 of the POA DD has now been corrected with the correct weblink having the same version number as the main body and hence is accepted.</li> <li>2. Page 11, section B.1 of the POA DD was checked was found to be corrected with the correct version number of the tool and hence is accepted.</li> <li>3. In page 17 of the revised POA DD, version 8 dated 30/12/2014, the version number was checked and was found to be corrected in line with the applied methodology.</li> <li>4. The Page 22 of the revised POA DD, version 8 dated 30/12/2014, the tool has now been included by the PP for the parameter EF<sub>g</sub> correctly and hence is accepted.</li> <li>5. In page 22, the "Annex" has been corrected by "Appendix" in the revised POA-DD, version 8 dated 30/12/2014.</li> <li>6. The template font size was checked with regard to the POA DD template available and was found to be used consistently by the PP.</li> <li>7. The information related to Carbon Limits was now found to be included in Appendix 1 of the revised POA DD, version 8 dated 30/12/2014.</li> <li>8. Page 40 of the revised POA DD, version 8 has now been revised with the title name consistent with the actual title as per UNFCCC.</li> <li>9. Page 47 of the revised POA DD, version 8 dated 30/12/2014 was checked and was found to be corrected the history.</li> </ol>	

## CAR is opened on 08/05/2015 due to following issues

### UN Incomplete Issues:

1. The PP is requested to substantiate how it has validated the technical barriers identified in PoA-DD (page 5 of PoA-DD) as per VVS version 7 paragraph 132, 133 and Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities version 3 paragraph 18. In particular, (a) for barrier 1, the PoA-DD indicates that “the base infrastructure cost for the road transport is provided free-of-cost via public investment to the bus system developers, the infrastructure cost of the cable cars is provided by the cable car developer at his own cost” and “a developer using buses for road transport will always requires significantly less capital costs”. The PP is requested to substantiate how these are considered as “technology barriers” considering that such barriers may have direct impact to the financial return; (b) for barrier 2, the PP is requested to elaborate how the low market share prevents the implementation of the CPAs (in particular the future CPAs) but not the implementation of at least one of the possible alternatives, considering the market conditions may change along the time, as well as how this barrier is sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs (in particular the future CPAs).

2. The PP is requested to indicate, in the eligibility criteria in PoA-DD, the technical specifications of the cable car that will be checked in each CPA. Please refer to paragraph 16(c) and footnote 6 of the Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities version 3.

3. The page 12 of PoA-DD indicates that the project activity is “First project in Nigeria and therefore there are no pre-existing routes” therefore meets the first applicability condition of AMS-III.U version 1. The PP is requested to substantiate how this applicability condition is secured for future CPAs, rather than the first CPA.

<b>Acceptance and Close out by Lead Assessor: Open</b>	<b>Date: 08/05/2015</b>
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<b>Project Participant Response:</b>	<b>Date: 19/05/2015</b>
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PP has reviewed the page 5 of the PoA and is now consistent with the *Paragraph 18* of the “*development of eligibility criteria and application of multiple methodologies for programmes of activities version 3*”.

PP has now reviewed the technical specifications of the Cable Car that will be checked in each CPA and its now consistent with the paragraph 16(c) and footnote 6 of the Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programmes of activities version 3

The page 12 of the PoA-DD has been reviewed by the PP and now states how the applicability condition is secured for future CPAs.

### Documentation Provided by Project Participant:

220515 PoA-DD (The PP did not mentioned the version and date)

### Information Verified by Lead Assessor:

Revised POA-DD, version 9 dated 22/05/2015

<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date: 29/05/2015</b>
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1. The PP had corrected the POA-DD in section B.1 and has correctly demonstrated the Technological Barrier based on the performance uncertainty and has excluded the parameters related to the project cost and hence no financial analysis was considered. The additionality of the project is purely based on the technical barriers.
2. The technical specifications was now found to be transparently included in the revised POA-DD, version 9 dated 22/05/2015 which was checked against the Lagos Cable Transit Project Traffic Advisor dated October 2012 and was found consistent and hence is accepted.
3. The PP had now included the Unique Identification Number (UIN) to each cable car mapped against its specified GPS location which makes it unique when compared to the future CPAs which was found acceptable by the assessment team..

CAR#01 is extended for below issues

### SGS Completeness Check Comments:

1. In section B.2, page7 of the POA DD, option (b) and section B.5 (Part II): Please clarify how the project title is sufficient. This is not found in line with comment 4 of the UN incomplete. Please clarify.
2. In section B.2: Please clarify whether the new cable car is built or not. Please clarify if this UIN applicable for the cable car or the routes concerned.
3. Section B.3: Please clarify why the captive power plants is not a part of the project boundary as project uses electricity from off-grid captive power plant in emergency.
4. Please clarify how in section B.3, the source of CH<sub>4</sub> as minor emission sources in the project activity is appropriate.
5. Please clarify why the vintage year for the source of data is not mentioned in section B.6.2 for the parameter SFC<sub>PT,G</sub>, SFC<sub>SB,G</sub> and SFC<sub>BB,D</sub>.
6. Please clarify how the parameter N<sub>x,j</sub> uses the value of the POA. The parameter is of the number of the vehicles the how the share of the passenger use value is appropriate. Same is followed for the parameters NCV<sub>x</sub> and EF<sub>CO<sub>2</sub>,D</sub>, EF<sub>CO<sub>2</sub>,G</sub>.
7. Please clarify the value for the parameter NCV<sub>x</sub>, the values are of the lower limit and also the unit is not correct. As per the table 1.2, upper limit for motor gasoline is 44.8 TJ/Gg and Diesel is 43.3 TJ/Gg. For the parameter, EF<sub>CO<sub>2</sub>,D</sub>, EF<sub>CO<sub>2</sub>,G</sub>, the values are provided in tCO<sub>2</sub>/TJ and unit conversion is not followed. Please clarify.
8. The table for the parameter OC<sub>PT</sub>, OC<sub>SB</sub>, OC<sub>BB</sub> is merged with the above table. Also, the vintage year of the source of data is not mentioned.
9. Please clarify how the parameter DD<sub>B</sub> and EC<sub>R</sub>, the value applied is "not applicable" is appropriate as this is POA level
10. Section B.6.3: Please clarify the approach of describing ex-ante emission reduction context and values should be re-looked considering the POA provides the framework for the CPA.
11. Page26: The upper limit considered for NCV of diesel and gasoline is not correct. Also, the value of gasoline is not consistent.
12. Page 26: The upper limit considered for carbon emission factor of diesel and gasoline is not correct. Also, the converted value of gasoline and diesel is not consistent.
13. Page 26: The EFkm of small buses is not consistent.
14. Page27: Year 1 means which year as technology improvement factor year counter is depends on age of data. If in year 2013 this specific fuel consumption study was done, then year 2014 have to consider the factor of 0.99, year 2015 (0.99\*0.99) and similar approach.
15. Page 28: Please clarify on the approach to calculate the baseline emissions is correct considering the same is on POA level which defines the framework for CPA. Also, in page 29, It is not clear if same approach will be followed for each CPA, if both emission factors are used separately then electricity consumption from grid and captive power plant need to be monitored separately.
16. Page30: This row summation is not coming by summation of direct and indirect, it seems that this is roundup values. Further, is it appropriate to provide ER values for PoA level considering PoA DD defines the framework for the CPA.
17. Page33: For the parameter, ECPJ: Please clarify why the fuel consumption of captive power plant is not included in the monitoring plan as per the tool. Also, please clarify how the values applied is appropriate on the POA level being a framework.
18. For the parameter occupancy rate of vehicle category i: Is this not used for leakage emissions, in fact significant change can trigger for leakage emissions, then why leakage emissions are not mentioned. Further, the details of load factor study as per meth are not mentioned.
19. Page42: Emission factor for the captive generator: This is contradictory as section B.6.2 mentioned

this parameter as ex ante parameter and referred this Appendix 4 section. Please clarify.

Emission Reduction sheet:

1. Please include the reference for the generation data. Please provide the source of data for OM and BM for off grid EF. Moreover, please clarify whether the value is used for ex post or ex ante.

CAR01 remains open.

<b>Acceptance and Close out by Lead Assessor: Open</b>		<b>Date: 08/07/2015</b>
<b>Project Participant Response:</b>		<b>Date: 10/08/2015</b>
1.	PP has reviewed the section B.2, page 7, option (b) and the section B.5 (Part II) of the POA DD and is now in line with comment 4 of the UN incomplete.	
2.	The Section B.2 has now been reviewed by the PP appropriately.	
3.	PP has now reviewed the Section B.3 to include the captive power plants as part of the project boundary.	
4.	The section B.3, source of CH <sub>4</sub> as minor emissions sources in the project activity has now been reviewed appropriately.	
5.	PP has now reviewed the section B.6.2 for the parameter $SFC_{PT,G}$ , $SFC_{SB,G}$ and $SFC_{BB,D}$ appropriately.	
6.	The parameter $Nx,j$ has now been reviewed by the PP appropriately. Also the parameters $NCV_x$ and $EF_{CO_2,D}$ , $EF_{CO_2,G}$ has been reviewed appropriately.	
7.	The value of the upper limits for the parameter $NCV_x$ has now been applied and stated accordingly to be consistent with the unit. The values for parameter $EF_{CO_2,D}$ , $EF_{CO_2,G}$ has also been reviewed and are now consistent with the unit.	
8.	PP has separated the table for the parameter $OC_{PT}$ , $OC_{SB}$ , $OC_{BB}$ appropriately. Vintage year for source of data is now mentioned.	
9.	For the parameter DDB and ECR, PP has now reviewed the “ <i>value applied</i> ” and is now appropriate for POA level.	
10.	The Section B.6.3 has now been reviewed by the PP appropriately.	
11.	The upper limit on Page 26 considered for NCV of diesel and gasoline has now been reviewed and stated correctly by the PP. The value of the gasoline has is now consistent.	
12.	The upper limit considered for carbon emission factor on Page 26 for diesel and gasoline has now been reviewed and stated correctly. Also, the converted value of gasoline and diesel has also been made consistent.	
13.	PP has now reviewed the $EF_{km}$ of small buses on Page 26 appropriately.	
14.	The Page27 on the technology improvement factor has now been reviewed appropriately by the PP.	
15.	PP has now reviewed the Page 28 on the approach to calculate the baseline emissions, and it's now consistent as per POA level which defines the framework for CPA. Also, page 29 has now been reviewed appropriately.	
16.	PP has now reviewed Page 30 appropriately as the POA is a framework for the CPA as all ER values in the POA has now been removed.	
17.	PP has reviewed the value applied for parameter ECPJ on Page33 to be consistent as a POA	



framework and also included the fuel consumption of the captive power plant in the monitoring plan as per tool.	
18.	PP has now reviewed the parameter “ <i>occupancy rate of vehicle category I</i> ”, and the leakage emission is now mentioned. The details of load factor study as per meth are now mentioned
19.	PP has now reviewed the Page42. The Emission factor for the captive generator mentioned in section B.6.2 has been reviewed and is now mentioned as an ex post parameter in B. 7.1, hence it's consistent with the Appendix 4.
<b>Emission Reduction sheet:</b>	
1. PP has now included reference for generation data. The source for off Grid EF has also been included. The value is used for ex post.	
<b>Documentation Provided by Project Participant:</b>	
060815 POA-DD	
Cable train 060815	
<b>Information Verified by Lead Assessor:</b>	
Revised POA DD version 10 dated 06/08/2015	
Excel sheet of ER calculations	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 12/08/2015, 14/01/2016
<ol style="list-style-type: none"> <li>The PP had corrected and elaborated the uniqueness of the project by including UIN in page 7 of section B.7 which was found to be considered acceptable.</li> <li>In section B.2, the PP has now transparently mentioned that the new cable cars only will be considered which is found acceptable.</li> <li>The PP has revised section B.3 to include captive power plant as part of the project boundary which was checked and was found to be accepted.</li> <li>The PP has corrected the section B.3 and has removed CH<sub>4</sub> as minor sources.</li> <li>The PP has revised the vintage year which is not older than 3 years from the data sourced from LAMATA correctly and hence is accepted.</li> <li>The parameters <math>N_{x,i}</math>, <math>NCV_x</math>, <math>EF_{CO_2,D}</math> and <math>EF_{CO_2,G}</math> have been corrected.</li> <li>The values of <math>NCV_x</math> have now been corrected corrected as 44.8 TJ/Gg for Gasoline and for Diesel, it is 43.3 TJ/Gg in line with table 1.2 of IPCC default values.</li> <li>The table has now been separated correctly.</li> <li>The value of the parameters <math>DD_B</math> and <math>EC_R</math> has now been corrected.</li> <li>The emission reduction calculation approach in POA has now been corrected in section B.6.3 and hence is accepted.</li> <li>The upper limit considered for NCV of diesel and gasoline has now been corrected in page 26 of the revised POA DD.</li> <li>The upper limit considered for emission factor of diesel and gasoline has now been corrected in page 26 of the revised POA DD.</li> <li>The EF<sub>km</sub> of small buses has now been corrected in page 26 of the revised POA DD.</li> <li>The technology improvement factor has now been corrected in page 27 in line with the methodology.</li> <li>The baseline emissions approach has now been considered it to be the POA level correctly in page 28.</li> <li>The values have now been corrected in page 30.</li> <li>The fuel consumption of captive power plant has now been included in page 33 of the monitoring plan as per the tool.</li> <li>The occupancy rate has been considered correctly in leakage emissions along with the details of load</li> </ol>	



factor.

19. The emission factor for the captive generation has now been mentioned as ex post parameter in section B.7.1 of the revised POA DD.

**Emission Reduction sheet:**

1. PP has now included reference for generation data correctly. The source for off Grid EF has also been included.

**With reference to 2<sup>nd</sup> UN Information & Reporting Check comments dated 07/01/2016, CAR #1 is re-opened due to the following points:**

**A. Eligibility criteria for inclusion of a CPA in the PoA:**

5. With regard to the eligibility criteria of additionality demonstration, the PoA-DD Section B.2 (page 7) has not included the objective conditions that ensure the CPA meets the requirements pertaining to the demonstration of additionality.
6. PoA-DD Section B.2 has not defined the eligibility criteria related to check of debundling with reference to the requirements specified under Methodological Tool for Assessment of debundling for small-scale project activities, ver.04 (EB 83 Annex 13) with special emphasis to the paragraph 12, 13 and 15. Similarly Generic CPA-DD Section B.5 has not also discussed how the eligibility of a generic CPA has been demonstrated and fulfilled against the requirement of above stated Methodological Tool (EB 83 Annex 13).
7. The number and content of eligibility criteria in section B.2 of the PoA-DD is not consistent with section B.2 of the generic CPA-DD. For example, there are 13 criteria in PoA-DD whereas 12 criteria are in the generic CPA-DD and criteria (f) in PoA-DD is not consistent with the content of Standard for Demonstration of additionality, development of eligibility criteria and application of multiple methodologies for PoA, ver.03, paragraph 16.

**B. Ex-ante Parameters:**

8. With regard to the determination of ex-ante parameter SFC at CPA level (i.e. specific fuel consumed of vehicle category), the methodology alternative(s) to be applied is (are) not consistently described in page 21 of the PoA DD. Since Alternative 2 of the applied methodology (i.e. use of fixed values based on national or international literature) is indicated/selected to determine the ex-ante values (page 21 of PoA DD, whereas it is also stated that individual CPAs can apply either of the alternatives as stated in the methodology depending on the option found suitable.

**Project Participant Response:**

**Date: 01/02/2016**

<p><b>A. Eligibility criteria for inclusion of a CPA in the PoA</b></p> <ol style="list-style-type: none"> <li>The PP has revised the section B.2 of the PoA-DD and now included the objective conditions that ensures the CPA meets the requirements for the demonstration of additionality.</li> <li>The PP has revised the section B.2 of the PoA –DD and the Generic CPA-DD section B.5 defining clearly the eligibility criteria related to the check of debundling referencing the relevant requirements stated under Methodological Tool for Assessment of debundling for small-scale project activities Version 04 (EB 83 Annex 13).</li> <li>The number and content of eligibility criteria of CPA inclusion into the PoA has now been revised and made consistent in section B.2 of the PoA-DD and Section B.5 of the generic CPA-DD.</li> </ol> <p><b>B. Ex-ante Parameters</b></p> <ol style="list-style-type: none"> <li>The PP has revised the ex-ante section for the SFC parameter at PoA level to describe clearly the alternative options as stated in the methodology to be applied at each CPA level.</li> </ol>	
<p><b>Documentation Provided as Evidence by Project Participant:</b></p> <p>A. Eligibility criteria for inclusion of a CPA in the PoA</p> <ol style="list-style-type: none"> <li>PoA-DD, See section B.2, Page 7</li> <li>PoA-DD, See section B.2 and B.5, Page 7 and 17</li> <li>PoA-DD, See section B.2 and B.5, Page 7 and 17</li> </ol> <p>B. Ex-ante Parameters</p> <ol style="list-style-type: none"> <li>PoA-DD and CPA-DD, See section B.6.2 of the PoA-DD and section D.6.2 of the generic CPA-DD, Page 22</li> </ol>	
<p><b>Information Verified by Lead Assessor:</b></p> <ol style="list-style-type: none"> <li>Revised POA-DD version 11 dated 01/02/2016</li> <li>Revised CPA-DD version 11 dated 01/02/2016</li> </ol>	
<p><b>Reasoning for not Acceptance or Acceptance and Close Out:</b></p> <p>The response provided by the CME along with the revised POA-DD and CPA-DD has been reviewed, it has been observed that in line with VVS version 09.0 the recent CDM-SSC-PoA-DD-FORM (version 04.0) and CDM-SSC-CPA-DD-FORM (version 04.0) has been duly adopted but the reference/ version of the following key CDM Standard/ Methodological Tool has not been consistently updated in the revised documents.</p> <ol style="list-style-type: none"> <li>Standard: Demonstration of additionality, development of eligibility criteria and applications of multiple methodologies for programme of activities (CDM-EB65-A03-STAN), Version 04.0 (EB87 Annex 03)</li> <li>Methodological Tool: Demonstration of additionality of smallscale project activities (TOOL21), Version 10.0 (EB83 Annex 14)</li> <li>Methodological Tool: Assessment of debundling for small-scale project activities (TOOL20), Version 04.0 (EB83 Annex 13)</li> <li>Methodological Tool: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation (TOOL05), Version 02.0 (EB87 Annex 8)</li> <li>Methodological Tool to calculate the emission factor for an electricity system (TOOL07), Version 05.0 (EB87 Annex 9)</li> <li>Standard: Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN), Version 05.0 (EB86 annex 03)</li> </ol> <p>Thus, procedurally the assessment note with regard to the respective open comments cannot be concluded by the DOE herein based on the above mentioned revised POA and CPA-DD submitted. PP is requested to rectify the inconsistency indicated and resubmit the documents.</p>	
<p><b>Acceptance and Close out by Lead Assessor: Open</b></p>	<p><b>Date: 19/02/2016</b></p>
<p><b>Project Participant Response:</b></p>	<p><b>Date: 24/02/2016</b></p>
<p>The PP has reviewed the reference/version of the key CDM standard/methodological tool used in the earlier submitted documents and has now consistently effected the update in the recent revised documents.</p>	
<p><b>Documentation Provided as Evidence by Project Participant:</b></p>	

240216 PoA DD 240216 CPA DD
<b>Information Verified by Lead Assessor:</b>
<ol style="list-style-type: none"> <li>1. Revised POA-DD version 12 dated 24/02/2016</li> <li>2. Revised CPA-DD version 12 dated 24/02/2016</li> </ol>
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>
<p><b>Eligibility criteria for inclusion of a CPA in the PoA:</b></p> <ol style="list-style-type: none"> <li>5. Section B.2 of the revised POA-DD has been reviewed and found to be appropriately incorporated the objective eligibility conditions for CPA regarding demonstration of additionality criteria as per Methodological tool on the demonstration of additionality of small scale project activities, ver. 10 under the criteria #(f). This was found to be justified and hence accepted.</li> <li>6. Section B.2 of the revised POA-DD has been reviewed and the eligibility criteria check on debundling aspect as per clause 5.3 of Methodological tool on assessment of debundling for SSC project activities, ver. 04.0 was found to be appropriately incorporated under the criteria #(l). This was found to be justified and hence accepted.</li> <li>7. The sequence number and content of eligibility criteria description under section B.2 of the revised PoA-DD and section B.2 of the revised generic CPA-DD was reviewed and found to be consistent with each other and also consistent with the paragraph 18 of Standard: Demonstration of additionality, development of eligibility criteria and applications of multiple methodologies for programme of activities (CDM-EB65-A03-STAN), Version 04.0 (EB87 Annex 03). Thus accepted.</li> </ol> <p><b>Ex-ante Parameters:</b></p> <ol style="list-style-type: none"> <li>1. The revised description of ex-ante fixed parameter “<i>Specific fuel consumed by Passenger car/Taxi and Small buses of fuel type gasoline and Big buses of fuel type diesel</i>” under section B.6.2 of the POA DD was checked. The correction made to ‘Source of data’ was found to be consistent with applied Monitoring Methodology AMS-III.U version 1.0, paragraph 16 and ‘Choice of data or Measurement methods and procedures’ as rectified was also found justified for the POA framework. Thus accepted.</li> </ol> <p>Therefore CAR#01 was closed out.</p>
<b>Acceptance and Close out by Lead Assessor: Closed</b> <b>Date: 02/03/2016</b>

Date:	04/12/2013	Raised by:	Assessment Team
Type:	CAR	Number:	#2
		Reference:	PoA-DD checklist
<b>Lead Assessor Comment:</b>			
<ol style="list-style-type: none"> <li>1. The Section E.3 (PoA-DD Part I) “Environmental Impact Assessment” mentioned in the webhosted PoA-DD is not present in the PoA-DD form available on the UNFCCC website.</li> <li>2. Section B.2 (part II) of the PoA-DD mentions the eligibility criteria for the inclusion of the CPA in the PoA. This is inconsistent with the PoA-DD completion guidelines.</li> <li>3. In section B.7.1 of the PoA-DD part II, all the rows for the description of the parameters have not been filled.</li> <li>4. Section F.1 of the PoA-DD (part I) does not justify why the stakeholder consultation will be carried out at the CPA level, as required by the guidelines for completing the PoA-DD.</li> </ol>			
<b>Project Participant Response:</b>		<b>Date: 24/02/2014</b>	

1. The Section E.3 of the PoA-DD Part I has now been revised in accordance with the PoA-DD form available on the UNFCCC website. 2. The Eligibility criteria for the inclusion of the CPA in the PoA in Section B.2 (Part II) now revised in accordance with the PoA – DD completion guidelines. 3. All the rows for the description of the parameters in section B.7.1 of the PoA-DD part II now completed accordingly. 4. The justification for the stakeholder consultation at CPA level is now revised in section F.1 of the PoA – DD (part 1)	
<b>Documentation Provided by Project Participant:</b>	
Revised PoA-DD	
<b>Information Verified by Lead Assessor:</b>	
The revised PoA-DD Version 2 dated 24/02/2014 has been checked for the revisions made by the PP	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 08/05/2014
1. The PP has deleted Section E.3 (PoA-DD Part I) “Environmental Impact Assessment” mentioned in the webhosted PoA-DD since it is not present in the PoA-DD form available on the UNFCCC website. Hence this deletion is accepted. Closed out. 2. Section B.2 (part II) of the PoA-DD still mentions the eligibility criteria for the inclusion of the CPA in the PoA. This is till inconsistent with the PoA-DD completion guidelines. Hence open. 3. In section B.7.1 of the PoA-DD part II, the PP has now correctly filled the blank which were left blank. However, for the parameters “EC <sub>PJ</sub> ” and “Occupancy rate of vehicle category <i>i</i> ” the row QA/QC procedures has been left blank. Hence open. 4. The PP has revised Section F.1 of the PoA-DD (part I) to include justification for carrying out stakeholder consultation at the CPA level. The justification provided by the PP is appropriate. This section has now been completed as required by the guidelines for completing the PoA-DD. Hence closed out.	
CAR #2 open	
<b>Acceptance and Close out by Lead Assessor: Open</b>	<b>Date:</b> 08/05/2014
<b>Project Participant Response:</b>	<b>Date:</b> 27/06/2014
2. The PP has revised the section B.2 and now consistent with the PoA-DD completion guidelines. 3. The PP has revised section B.7.1 of the PoA-DD part II and now completed the QA/QC procedures sections of the monitoring tables for the parameters “EC <sub>PJ</sub> ” and “Occupancy rate of vehicle category <i>i</i> ”	
<b>Documentation Provided by Project Participant:</b>	
Revised POA-DD version 03 dated 22/05/2014	
<b>Information Verified by Lead Assessor:</b>	
Revised POA-DD version 03 dated 22/05/2014 is checked for appropriateness of applicability conditions justified in line with POA-DD completion guidelines.	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 08/07/2014
PP is requested to clarify how the each applicability condition of the applied methodology is fulfilled along with appropriate evidences for the POA in section B.2 of the revised PoA-DD version 03 dated 22/05/2014, part II. Section B.7.1 of the revised POA-DD version 03 dated 22/05/2014 now includes description on QA/QC procedures for monitoring parameters “EC <sub>PJ</sub> ” and “Occupancy rate of vehicle category <i>i</i> ”. This is found to be appropriate and it is accepted. Thus CAR #2 is open.	
<b>Project Participant Response:</b>	<b>Date:</b> 25/07/2014
The PP has reviewed the PoA – DD and has clarified how each applicability condition of the applied methodology is fulfilled along with appropriate evidences as per the generic CPA in section B.2 of the PoA-DD.	
<b>Documentation Provided by Project Participant:</b>	
PoA-DD version 04	
<b>Information Verified by Lead Assessor:</b>	

Revised POA-DD version 04 dated 18/07/2014 is checked for appropriateness of justification provided for each applicability condition of the applied methodology.	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 22/08/2014
PP submitted revised POA-DD version 04 dated 18/07/2014 with each applicability criteria of the applied methodology justified appropriately along with evidences. This is found to be appropriate and it is accepted. Thus CAR #2 is closed out.	
<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 22/08/2014

Date:	04/12/2013	Raised by:	Assessment Team		
Type:	CL	Number:	#3	Reference:	PoA-DD checklist
<b>Lead Assessor Comment:</b>					
<div>1. Section A.2 of the PoA-DD (Part I) states that “Also if implemented it will be first such urban cable car project in Africa...” During the initial presentation on the project by the CME, it was mentioned that there is already a cable car project existing in Algeria. Please clarify the appropriateness of the statement in the PoA-DD.</div> <div>2. Please clarify the inconsistency in the name of the CME between the following sections of the PoA-DD: Section A.3 (part I); Section A.4 (part I) and Appendix 1.</div> <div>3. Section B.3 (Part I) of the PoA-DD mentions that the applied methodology is AMS.III-U and it also gives reference to “AMS.I-C (when applicable)”. Please clarify the usage of AMS.I-C.</div>					
<b>Project Participant Response:</b>				<b>Date:</b> 24/02/2014	
<div>1. The claim of “Also if implemented it will be first such urban cable car project in Africa...” has now been revised to “Also if implemented it will be first such urban cable car project in West Africa...” in section A.2 of the PoA –DD.</div> <div>2. The two sections (A.3 and A.4) of part I now revised to reflect the name of the CME.</div> <div>3. Section B.3 (part 1) of the PoA-DD has been corrected and clearly stated as AMS.III-U</div>					
<b>Documentation Provided by Project Participant:</b>					
Revised PoA-DD					
<b>Information Verified by Lead Assessor:</b>					
The revised PoA-DD Version 2 dated 24/02/2014 has been checked for the revisions made by the PP					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 08/05/2014	
<div>1. The PP has revised the statement in Section A.2 of the PoA-DD (Part I) to “Also if implemented it will be first such urban cable car project in West Africa...” This revision is correct. The assessment team has confirmed through a search of publically available information that no such cable car project exists in West Africa. Hence closed out.</div> <div>2. The name of the CME has now been consistently mentioned in the following sections of the PoA-DD: Section A.3 (part I); Section A.4 (part I) and Appendix 1. Hence accepted and closed out.</div> <div>3. The PP has correctly removed the reference to the methodology “AMS.I-C (when applicable)” in Section B.3 (Part I) of the PoA-DD. This is correct. Hence accepted and closed out.</div>					
CL #3 is closed out					
<b>Acceptance and Close out by Lead Assessor: Closed</b>				<b>Date:</b> 08/05/2014	

Date:	04/12/2013		Raised by:	Assessment Team		
Type:	CAR	Number:	#4	Reference:	PoA-DD checklist	
<b>Lead Assessor Comment:</b>						
1. The CME has identified the baseline scenario in Section B.4 (part II) of the PoA-DD as the use of small and medium sized buses using diesel and gas for fuels. It is not clear how paragraph 8, of the methodology is satisfied in determining the baseline scenario, which states “The baseline is determined						

<p><u>by assessing alternatives to public transport in the project region</u> including inter alia a continuation of the current situation and the project realized without the CDM.”</p>	
<p>2. Additionality has been demonstrated in Section B.1 of the PoA-DD (part I) using the “technological barrier” option i.e. paragraph 1(b) of the guidelines for the demonstration of additionality of SSC project activities. However it is not clear how the additionality arguments satisfy the requirements of the paragraph 1(b) of the guidelines.</p>	
<p>3. The eligibility criteria are inconsistent between sections B.2 (part I) and B.5 (part II) of the PoA-DD.</p>	
<p>4. The CME has referred to “start date of validation of the PoA” under the eligibility criteria point (e) in section B.2 of the PoA-DD (part I).</p>	
<p>5. The start date of the PoA has been mentioned as 01/01/2015 in Section D.1 of the PoA-DD (part I). As per the guidelines for completing the PoA-DD “Describe how the start date was determined” – this detail is not present in this section. The CME is also required to submit evidence for the start date.</p>	
<b>Project Participant Response:</b>	<b>Date:</b> 24/02/2014
<p>1. Baseline scenario description in Section B.4 (part II) is revised accordingly.</p>	
<p>2. The additionality argument has been revised to satisfy the requirements of the paragraph 1 (b) of the guidelines.</p>	
<p>3. Sections B.2 (part I) and B.5 (part II) of the PoA- DD has been revised and now consistent.</p>	
<p>4. The section B.2 of the PoA-DD (part I) now revised.</p>	
<p>5. The start date of this PoA is the date of publication of the PoA-DD for Global Stakeholder Consultation – 29/10/2013 – as shown on the UNFCCC website. This has been revised in the PoA-DD.</p>	
<b>Documentation Provided by Project Participant:</b>	
Revised PoA-DD	
<b>Information Verified by Lead Assessor:</b>	
The revised PoA-DD Version 2 dated 24/02/2014 has been checked for the revisions made by the PP	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 08/05/2014 Reopen: 12/09/2014
<p>1. The PP has revised the information in section B.4 (part II). The PP has now stated that “Currently and for the foreseeable future, the traditional transport mode using diesel and gas for fuels is dominated by small and medium sized buses, motorcycle taxis and three-wheeled mini-cars represent 78% of motorized traffic, of which 83% is bus-related. The most recent initiative on mass transit in Lagos also uses buses – Bus Rapid Transit (BRT) – Lite that began operations in 2008. Given this reliance on bus based-transport in central Lagos, it is reasonable to assume that the base line is the continued expansion of this bus transport mode.” Thus the PP has assessed the alternatives to public transport in the region. The Lagos Cable Propelled Transit Preliminary Feasibility Study and the Integrated Transport Planning report have been checked to verify the details in section B.4. Hence accepted and closed out.</p>	
<p>2. The PP has revise d the additionality arguments in Section B.1 of the PoA-DD (part I). Additionality has been demonstrated using the “technological barrier” option i.e. paragraph 1(b) of the guidelines for the demonstration of additionality of SSC project activities. The arguments made by the PP satisfy the requirements of the paragraph 1(b) of the guidelines. Hence accepted and closed out.</p>	
<p>3. The eligibility criteria are now consistent between sections B.2 (part I) and B.5 (part II) of the PoA-DD. The PP has removed point “e” in section B.5 since it is already covered under point “a”. Hence accepted and closed out.</p>	
<p>4. The PP has deleted the term “start date of validation of the PoA” under the eligibility criteria point (e) in section B.2 of the PoA-DD (part I) and has correctly used the term “start date” only. The MoV of the same has been correctly mentioned as evidence for implementation, construction or real action. Hence accepted and closed out.</p>	
<p>5. The start date of the PoA has been revised to 29/10/2013 in Section D.1 of the PoA-DD (part I) i.e. the date of publication of the PoA-DD for global stakeholder consultation. This is in line with paragraph 159(b) of the CDM PS version 5.0. Also, Section D.1 satisfies the guidelines for completing the PoA-DD. Hence</p>	



accepted and closed out.

PP is requested to clarify the appropriateness of demonstration of additionality at POA level in line with clause 3.1 of EB 74 Annex 5. Please justify how additionality as PoA level is appropriate and adequate for all CPAs to be included in the PoA as per the para 7 of EB 74 Annex 5. CME has to clarify why CPA level demonstration of additionality has not been undertaken for each CPA.

Please clarify the adequacy of eligibility of criteria defined for CPA eligibility in the proposed POA in line with para 16 of EB 74 Annex 5.

**Generic CPA:**

1. It is unclear from the application of methodologies section B.2 why specific CPA reference has been included for a Generic CPA criteria
2. The baseline is determined by assessing alternatives to public transport in the project region. Why assessment of other possible alternatives are not shown.
3. Please refer to comment 5 for Eligibility criteria of CPA inclusion for PoA-DD and address the same in Generic CPA-DD
4. The values are interchanged for  $EF_{CO_2,D}$ ,  $EF_{CO_2,G}$ . Also please clarify why upper values are chosen and not the lower. Why value of  $DD_B$  has not been reported.

Thus CAR #4 Open.

**Project Participant Response:**

**Date:** 17/09/2014

The PP has reviewed the PoA-DD document to show how the additionality at PoA level is appropriate and adequate for all CPAs to be included in the PoA as per the para 7 of EB 74 Annex 5.

The eligibility criteria defined for CPA eligibility in the proposed PoA has been reviewed and its now in line with paragraph 16 of EB 74 Annex 5

1. Section B.2 has been reviewed to reflect Generic CPA criteria.
2. The PP has further redefined this in the appropriate section of the PoA. PP stressed that the current public mode of transportation (use of buses) are the most accessible and reliant within the urban regions in Nigeria and thus represents the only feasible alternative.
3. The comment 5 for eligibility criteria of CPA inclusion for PoA-DD has now been revised. Also same has been done for the Generic CPA-DD.
4. PP has effected changes to the interchanged values of  $EF_{CO_2,D}$ ,  $EF_{CO_2,G}$ . Thus, the respective values have been stated correctly.

The choice of upper values was based on the instruction and advice as stated in the parameter tables of the methodology in AMS. III.U

The value of  $DD_B$  was not used in the estimation of ER and was not monitored both in the generic CPA and first CPA as there are no sub categories of vehicles. Also, this is not used for determining this parameter. However, this could be measured in subsequent CPAs if required.

**Documentation Provided by Project Participant:**

Revised POA DD

**Information Verified by Lead Assessor:**

Revised POA DD version 05 dated 19/09/2014 is checked for appropriateness changes made against above queries.

**Reasoning for not Acceptance or Acceptance and Close Out:**

**Date:** 06/10/2014

PP is requested to clarify how technology barrier as additionality criteria is appropriate when the selected barrier "technology barrier" may depends on various factors such as location of project implementation in host country, penetration of the technology in the host country and timing of implementation of the project activity etc. Technology barrier can be acceptable for a particular project activity and not the Programme of activity. Thus PP is requested to clarify the appropriateness of demonstration of additionality at POA level in line with clause 3.1 of EB 74 Annex 5.

Section B.2 of the revised POA DD version 05 dated 19/09/2014 appropriately mentioned eligibility of criteria defined for CPA eligibility in the proposed POA in line with para 16 of EB 74 Annex 5. This is found to be appropriate and it is accepted.

**Generic CPA:**

1. Specific CPA reference is now removed from section B.2 for Generic CPA criteria; hence it is



accepted.

2. Appropriate documentary evidence is not provided to support elimination of light rail as alternative scenario for the project activity. Please clarify.
3. Section B.5 (Part II) of the POA DD for Eligibility criteria of CPA inclusion for PoA-DD is not mentioned in generic manner. Please clarify.
4. The values of monitoring parameters  $EF_{CO_2,D}$  and  $EF_{CO_2,G}$  are appropriately mentioned in section B.6.2 of the POA DD and those are found to be appropriate in line with the applied methodology. Also appropriate information included for monitoring parameter  $DD_B$ . This is found to be appropriate and it is accepted.
5. The value of the  $EF_{CO_2,G}$  and  $EF_{CO_2,D}$  reported in the tables and in the Excel worksheet are missing a  $10^{-3}$  (or the units need to be changed to grCO<sub>2</sub>/kJ). Please clarify.
6. When computing the indirect project emissions is assumed that  $SP_{BL,i,s,y} = SP_{PJ,i,s,y}$ . Please clarify Why?

Thus CAR #4 Open.

**Project Participant Response:**

**Date:** 15/10/2014

PP has now reviewed and provided evidence to support elimination of light rail as alternative scenario for the project activity.

Section B.5 of the POA DD for Eligibility criteria of CPA inclusion for PoA-DD has now been revised in a generic manner.

PP has reviewed the value of  $EF_{CO_2,G}$  and  $EF_{CO_2,D}$  in the tables and excel sheet by applying the appropriate units as stated in the methodology and expressing the values in the right standards.

The PP assumed that  $SP_{BL,i,s,y} = SP_{PJ,i,s,y}$  considering the fact that the project activity is designed to reduce traffic congestion into an existing mode of transport system. The project activity does not eliminate the existing transport system but rather improves the overall system by reducing the time spent in moving within the Central business districts of Lagos. When passengers arrive at their final cable car station they will continue to use the existing transport system for the final segment of their journey. Therefore, the number of passengers travelling within the central business district is not affected by the type of transport. This is in line with the feasibility carried out which was submitted to the Auditors in "Lagos Cable Transit Project Advisor (2012)"

**Documentation Provided by Project Participant:**

PoA-DD version 06 dated 14/10/2014

ER Estimation Sheet 16/09/2014

**Information Verified by Lead Assessor:**

PoA-DD version 06 dated 14/10/2014

ER Estimation Sheet 16/09/2014

**Reasoning for not Acceptance or Acceptance and Close Out:**

**Date:** 05/11/2014, 14/01/2016

The alternative scenario of light rail has been checked and found to be consistent and thus accepted.

The POA DD Eligibility criteria has been found to be consistent with the requirement and thus accepted.

The values of  $EF_{CO_2,G}$  and  $EF_{CO_2,D}$  were found to be consistent and thus accepted

Justification for  $SP_{BL,i,s,y} = SP_{PJ,i,s,y}$  was found to be correct and thus accepted.

**With reference to 2<sup>nd</sup> UN Information & Reporting Check comments dated 07/01/2016, CAR #4 is re-opened due to the following points:**

**Additionality Demonstration:**

3. PP is requested to justify the appropriateness of demonstration of additionality at POA level through selected barrier 'technology barrier' in line with clause 3.1 of EB 74 Annex 5, since 'technology barrier' may depends on various factors such as 'location of project implementation in host country', 'penetration of the technology in the host country' and in particular 'time of the implementation of the project activity' considering the PoA duration of 28 years.
4. PP is requested to provide further information on applicability of the technology barrier as per paragraph 4 of EB 50 Annex 13; in doing so, the information on nature of company, organization

and its ownership, and previous experience with similar project in other locations shall be provided in the CPA DDs.	
<b>Project Participant Response:</b>	<b>Date: 01/02/2016</b>
<b>Additionality Demonstration:</b> <ol style="list-style-type: none"> <li>1. PP has revised the section B.1 on Demonstration of additionality for PoA in the PoA-DD and has taken off the demonstration of additionality based on technological barrier which was initially justified at the level of PoA. It has now listed the required criteria necessary for the demonstration of additionality in the Section B.1 of the PoA such that the justification of additionality would be done at each CPA level.</li> <li>2. Considering the revision as stated in (1) above, the provision of further information on the applicability of the technology barrier as per paragraph 4 of EB50 Annex 13 is no longer required at POA level but has now been effected at CPA.</li> </ol>	
<b>Documentation Provided as Evidence by Project Participant:</b>	
<b>Additionality Demonstration:</b> <ol style="list-style-type: none"> <li>1. PoA-DD, See section B.1, Page 5</li> <li>2. CPA-DD, See section D.5, Page 15</li> </ol>	
<b>Information Verified by Lead Assessor:</b>	
<ol style="list-style-type: none"> <li>3. Revised POA-DD version 11 dated 01/02/2016</li> <li>4. Revised CPA-DD version 11 dated 01/02/2016</li> </ol>	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	
<p>The response provided by the CME along with the revised POA-DD and CPA-DD has been reviewed, it has been observed that in line with VVS version 09.0 the recent CDM-SSC-PoA-DD-FORM (version 04.0) and CDM-SSC-CPA-DD-FORM (version 04.0) has been duly adopted but the reference/ version of the following key CDM Standard/ Methodological Tool has not been consistently updated in the revised documents.</p> <ol style="list-style-type: none"> <li>a. Standard: Demonstration of additionality, development of eligibility criteria and applications of multiple methodologies for programme of activities (CDM-EB65-A03-STAN), Version 04.0 (EB87 Annex 03)</li> <li>b. Methodological Tool: Demonstration of additionality of small scale project activities (TOOL21), Version 10.0 (EB83 Annex 14)</li> <li>c. Methodological Tool: Assessment of debundling for small-scale project activities (TOOL20), Version 04.0 (EB83 Annex 13)</li> <li>d. Methodological Tool: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation (TOOL05), Version 02.0 (EB87 Annex 8)</li> <li>e. Methodological Tool to calculate the emission factor for an electricity system (TOOL07), Version 05.0 (EB87 Annex 9)</li> <li>f. Standard: Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN), Version 05.0 (EB86 annex 03)</li> </ol> <p>Thus, procedurally the assessment note with regard to the respective open comments cannot be concluded by the DOE herein based on the above mentioned revised POA and CPA-DD submitted.  PP is requested to rectify the inconsistency indicated and resubmit the documents.</p>	
<b>Acceptance and Close out by Lead Assessor: Open</b>	<b>Date: 19/02/2016</b>
<b>Project Participant Response:</b>	<b>Date: 24/02/2016</b>
<i>The PP has reviewed the reference/version of the key CDM standard/methodological tool used in the earlier submitted documents and has now consistently effected the update in the recent revised documents.</i>	
<b>Documentation Provided as Evidence by Project Participant:</b>	
240216 PoA DD 240216 CPA DD	
<b>Information Verified by Lead Assessor:</b>	

1. Revised POA-DD version 12 dated 24/02/2016
2. Revised CPA-DD version 12 dated 24/02/2016

**Reasoning for not Acceptance or Acceptance and Close Out:**

3. Section B.1 of the revised POA-DD was reviewed and it was found that in response to the findings, the CME has withdrawn the description of additionality demonstration aspect at the POA level and in place the new description has been added on additionality demonstration criteria for the CPA to be included for demonstration of additionality at individual CPA level. The additionality demonstration criteria for individual CPA was found to be defined in line with the requirement of paragraph 10 of Standard: Demonstration of additionality, development of eligibility criteria and applications of multiple methodologies for programme of activities (CDM-EB65-A03-STAN), Version 04.0 (EB87 Annex 03) and accordingly individual CPAs to be included in the proposed POA has to demonstrate additionality in compliance with paragraph 10 of Methodological Tool: Demonstration of additionality of small scale project activities (TOOL21), Version 10.0 (EB83 Annex 14) with respect to at least one of the barriers listed therein the Tool. This was found justified and hence accepted.
4. Since the description on the additionality description at the POA level has been withdrawn from the revised POA-DD, thus the description on additionality demonstration in the revised CPA-DD section D.5 as per Technological Barrier was reviewed. It was found that the requisite information on applicability of the technology barrier such as the information on nature of company, organization and its ownership, and their previous experience with similar project in other locations etc. involved in the proposed CPA implementation has been duly included in the CPA-DD as per the requirement of paragraph 4 of EB 50 Annex 13. Thus accepted.

Therefore CAR#04 was closed out.

**Acceptance and Close out by Lead Assessor: Closed**      **Date: 02/03/2016**

Date:	04/12/2013	Raised by:	Assessment Team		
Type:	CAR	Number:	#5	Reference:	PoA-DD checklist
<b>Lead Assessor Comment:</b>					
As per the guidelines for completing the PoA-DD, if data and parameters are determined by a sampling approach, a description of the sampling plan has to be provided. Please clarify why a sampling plan has not been provided in Section B.7.2 of the PoA-DD (part II) considering that there are 4 parameters in Section B.7.1 whose values will be obtained based on a survey.					
<b>Project Participant Response:</b>				<b>Date:</b> 24/02/2014	
The sampling plan will be finalized when the physical project is implemented and key parameters for calculating the four values are known.					
<b>Documentation Provided by Project Participant:</b>					
Revised POA-DD version 02 dated 24/02/2014					
<b>Information Verified by Lead Assessor:</b>					
Revised POA-DD version 02 dated 24/02/2014					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 08/05/2014	
The PP has mentioned that the sampling plan will be finalized when the physical project is implemented and key parameters for calculating the four parameters are known. However, PP is requested to clarify how the requirements of paragraph 7 of the “Standard: Sampling and surveys for CDM project activities and programme of activities” Version 4.1 is met. CAR #5 open					
<b>Acceptance and Close out by Lead Assessor: Open</b>				<b>Date:</b> 08/05/2014	
<b>Project Participant Response:</b>				<b>Date:</b> 27/06/2014	
The PP has updated Section B.7.2 of the PoA-DD (part II) and also included a sampling plan in the appendix section of the PoA – DD.					
<b>Documentation Provided by Project Participant:</b>					
Revised POA-DD version 03 dated 22/05/2014					
<b>Information Verified by Lead Assessor:</b>					

Revised POA-DD version 03 dated 22/05/2014 is checked for appropriateness of sampling plan described for the programme of activities.	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 08/07/2014 Reopen: 06/10/2014,05/11/2014
<p>PP now included sampling plan for the Programme of Activities in Appendix of the POA-DD. This is found to be appropriate and it is accepted.</p> <p>The objective of the sampling is to estimate for various vehicle categories both at baseline and project activity</p> <ol style="list-style-type: none"> <li>1. Share of passengers</li> <li>2. Occupancy rate</li> <li>3. Trip distance</li> </ol> <p>According to the POA DD,</p> <ul style="list-style-type: none"> <li>• A simple random sampling is to be used</li> <li>• Data collection would be on a quarterly basis</li> </ul> <p>However, please clarify why below information is not provided:</p> <ul style="list-style-type: none"> <li>• Venues where the counting of vehicles would take place.</li> <li>• Number of days in each quarter and number of hours in each day when the field work would be carried on</li> </ul> <p>Under the section <b>Field measurement</b>, it is specified that number of each type of vehicle during peak and off peak hours is to be counted to find the proportion of each type of vehicle. It is <u>not clear how to estimate the occupancy rate and distance travelled</u> for various vehicles. It is to be clearly stated whether to take the assumed figures (as given in the Excel file Cable Train 140115) of average occupancy and trip distance or to estimate it from the sample. If estimated from the sample; a detailed description of the estimation is required. It is not clearly documented how the data is to be collected and used to estimate the above measures.</p> <ol style="list-style-type: none"> <li>1. Venues where the counting of vehicles would take place - Would it be in all districts where cable car is operating or a sample of these districts? If sample, then which ones?</li> <li>2. Please clarify on the number of days in each quarter and number of hours in each day when the field work would be carried on.</li> </ol> <p>Thus CAR #5 is remains open.</p>	
<b>Project Participant Response:</b>	<b>Date:</b> 14/11/14
PP has reviewed the sampling plan in the appendix 5 of the PoA and CPA to include how the passengers using the cable car will be surveyed to determine the type of vehicles, number of passengers per vehicle, and origin of their travel. We have also indicated the number of days and hours in each quarter when the field work would be carried out.	
<b>Documentation Provided by Project Participant:</b>	
PoA-DD version 07 dated 14/11/2014	
CPA-DD version 07 dated 14/11/2014	
<b>Information Verified by Lead Assessor:</b>	
PoA-DD version 07 dated 14/11/2014	
CPA-DD version 07 dated 14/11/2014	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 19/11/2014, 14/01/2016

<p>Sampling plan in the appendix 5 of the PoA and CPA to include how the passengers using the cable car will be surveyed to determine the type of vehicles, number of passengers per vehicle, and origin of their travel was checked and found to be consistent and thus accepted.</p> <p><b>With reference to 2<sup>nd</sup> UN Information &amp; Reporting Check comments dated 07/01/2016, CAR #5 is re-opened due to the following points:</b></p> <ol style="list-style-type: none"> <li>1. PP is requested to demonstrate and justify the completeness of the sampling plan of the PoA and specific CPA in accordance with paragraphs 12, 21 and 23 of “Standard for sampling and surveys for CDM project activities and programme of activities” (i.e. sampling standard), for special emphasis to: <ol style="list-style-type: none"> <li>d. information on whether the sampling for any parameter is to be conducted at PoA level or CPA level;</li> <li>e. information on how the sample size of each parameter is to be calculated/determined; and</li> <li>f. information on the proposed sample size of the first specific CPA.</li> </ol> </li> </ol>	
<b>Project Participant Response:</b>	<b>Date: 01/02/2016</b>
<p><i>The PP has revised the PoA-DD and stated clearly the information that sampling shall only be carried out at the level of specific CPAs but guidelines that should be met by CPAs for inclusion into the PoAs are now stated in section B.2 and detailed in Appendix 5. Information on how the sample size of each parameter is to be determined and the proposed sample size for the specific CPA are now subjected to the guidelines in accordance to “Standard for sampling and surveys for CDM project activities and programme of activities”.</i></p>	
<b>Documentation Provided as Evidence by Project Participant:</b>	
<p>1. PoA-DD, See section B.2 Page 7, Appendix 5 Page 49, and also in CPA, See Section D.5 Page 15 and Appendix 5 Page 54.</p>	
<b>Information Verified by Lead Assessor:</b>	
<ol style="list-style-type: none"> <li>1. Revised POA-DD version 11 dated 01/02/2016</li> <li>2. Revised CPA-DD version 11 dated 01/02/2016</li> </ol>	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	
<p>The response provided by the CME along with the revised POA-DD and CPA-DD has been reviewed, it has been observed that in line with VVS version 09.0 the recent CDM-SSC-PoA-DD-FORM (version 04.0) and CDM-SSC-CPA-DD-FORM (version 04.0) has been duly adopted but the reference/ version of the following key CDM Standard/ Methodological Tool has not been consistently updated in the revised documents.</p> <ol style="list-style-type: none"> <li>a. Standard: Demonstration of additionality, development of eligibility criteria and applications of multiple methodologies for programme of activities (CDM-EB65-A03-STAN), Version 04.0 (EB87 Annex 03)</li> <li>b. Methodological Tool: Demonstration of additionality of smallscale project activities (TOOL21), Version 10.0 (EB83 Annex 14)</li> <li>c. Methodological Tool: Assessment of debundling for small-scale project activities (TOOL20), Version 04.0 (EB83 Annex 13)</li> <li>d. Methodological Tool: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation (TOOL05), Version 02.0 (EB87 Annex 8)</li> <li>e. Methodological Tool to calculate the emission factor for an electricity system (TOOL07), Version 05.0 (EB87 Annex 9)</li> <li>f. Standard: Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN), Version 05.0 (EB86 annex 03)</li> </ol> <p>Thus, procedurally the assessment note with regard to the respective open comments cannot be concluded by the DOE herein based on the above mentioned revised POA and CPA-DD submitted.  PP is requested to rectify the inconsistency indicated and resubmit the documents.</p>	
<b>Acceptance and Close out by Lead Assessor: Open</b>	<b>Date: 19/02/2016</b>
<b>Project Participant Response:</b>	<b>Date: 24/02/2016</b>



<p><i>The PP has reviewed the reference/version of the key CDM standard/methodological tool used in the earlier submitted documents and has now consistently effected the update in the recent revised documents.</i></p>	
<p><b>Documentation Provided as Evidence by Project Participant:</b></p>	
<p>240216 PoA DD 240216 CPA DD</p>	
<p><b>Information Verified by Lead Assessor:</b></p>	
<ol style="list-style-type: none"> <li>1. Revised POA-DD version 12 dated 24/02/2016</li> <li>2. Revised CPA-DD version 12 dated 24/02/2016</li> </ol>	
<p><b>Reasoning for not Acceptance or Acceptance and Close Out:</b></p>	
<ol style="list-style-type: none"> <li>1. The updated sampling plan description provided under Section of POA-DD and Section of specific CPA DD has been checked against the requirements with regard to the paragraphs 12, 21 and 23 of "Standard: Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN), Version 05.0 (EB86 annex 03) and the corresponding commented points were found to be resolved in the following manner: <ol style="list-style-type: none"> <li>d. The revised POA-DD, Section B.2 and Appendix 5 was found to be specifically clarified the aspect of sampling method for the relevant monitoring parameters will be conducted at the individual CPA level with 5 step approach following the provisions of "Standard for Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN)", version 05.0 and "Guideline for Sampling and surveys for CDM project activities and programme of activities (CDM-EB67-A06-GUID)", version 04.0. <ol style="list-style-type: none"> <li>(vii) The sampling size shall be determined by the 95% confidence interval and the 5% maximum error margin;</li> <li>(viii) Sampling shall be statistically robust and relevant to the project activity i.e. the survey shall be a random distribution and will be a representative of the persons using the project transport system;</li> <li>(ix) The methodology to select persons for interviews shall be made random;</li> <li>(x) Only persons over age 18 shall be interviewed considering the percentage of people in Nigeria that usually will embark on such trips alone without a guardian;</li> <li>(xi) The survey is shall be realized on all week days and Saturdays with the sample size per day being proportional to the number of passengers transported by the project per corresponding week day. Sample size shall be determined using any of the options found suitable in line with Standard and Guideline for "Sampling and surveys for CDM project activities and programme of activities", version 05 and version 04 respectively;</li> <li>(xii) The sample size upwards and downwards in the cable car is proportional to the number of passengers transported upwards/downwards on the cable car;</li> </ol> <p>The survey will be realized as described in the methodology and in accordance with the survey plans by the transport authority for each cable car during one (1) calendar year. Thereafter the survey is not repeated.</p> <p>This was found to be justified and hence accepted.</p> </li> <li>e. The revised POA-DD, Appendix 5 was found to be included the clarification on the determination of sampling size approach for the relevant monitoring parameters (<math>SP_{BL,i,S}</math>, <math>SP_{PJ,i,S}</math>, <math>TD_{BL,i,S}</math>, <math>TD_{PJ,i,S}</math> and <i>Occupancy rate of vehicle category i</i>) at the individual CPA will be conducted following the relevant options prescribed under "Standard for Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN)", version 05.0 and "Guideline for Sampling and surveys for CDM project activities and programme of activities (CDM-EB67-A06-GUID)", version 04.0. This was found to be justified considering the general framework context for the specific CPAs defined in the POA-DD, since the sampling will be conducted at the individual CPA level.</li> <li>f. The revised specific CPA-DD, Appendix 5 was found to be included the detailed elaboration</li> </ol> </li> </ol>	

on the sampling size determination approach (formula and assumptions) for the relevant monitoring parameters ( $SP_{BL,i,s}$ ,  $SP_{PJ,i,s}$ ,  $TD_{BL,i,s}$ ,  $TD_{PJ,i,s}$  and *Occupancy rate of vehicle category i*). The respective sampling size will be calculated on ex-post basis with a 95% confidence interval and the 5% maximum error margin using the corresponding formula and assumptions respective formula. The description on sampling size determination approach found to be transparent and justified. Hence accepted.

Therefore CAR#05 was closed out.

**With reference to 3<sup>rd</sup> UN Information & Reporting Check comments dated 26/05/2016, CAR#05 is re-opened due to the following points:**

In accordance with paragraph 7 and 12 of the “Standard: Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN), Version 05.0 (EB86 annex 03)”, the type of parameter of interest, the sampling method, the sample size, the target value and expected variance are required in the sampling plan.

The sampling plan of the current PoA DD does not specify the framework options for the CPAs to be included under the POA, related to the following items as per the requirements of Sampling and surveys for CDM project activities and programmes of activities, version 5:

- (d) the type of parameter of interest;
- (e) the sampling method(s) to be applied; and
- (f) how the sample size of each parameter is to be calculated/determined.

<b>Acceptance and Close out by Lead Assessor: Closed</b>	<b>Date:</b> 08/03/2016, 30/06/2016
<b>Re-opened</b>	
<b>Project Participant Response:</b>	<b>Date:</b> 15/07/2016
The PP in line with paragraph 7 and 12 of the “Standard: Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN), Version 05.0 (EB86 annex 03)” has now specified all the necessary information required in the sampling plan in Appendix 5 of the PoA-DD necessary for the inclusion of CPAs.	
<b>Documentation Provided by Project Participant:</b>	
150716 PoA-DD	
<b>Information Verified by Lead Assessor:</b>	
<ul style="list-style-type: none"> <li>• POA DD, version 13, dated 15/07/2016</li> <li>• CPA DD, version 13, dated 15/07/2016</li> </ul>	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 03/08/2016



<p>In response to the commented points on the sampling plan, CME has revised the sampling plan description under Annex 5 of POA-DD. Upon review of the modified sampling plan description specified in the POA-DD it has been found that the requisite information related to “type of parameter of interest” (proportion or mean value) for the monitoring parameters will be requiring sampling plan for monitoring; sampling method as simple random sampling and options related to sample size determination approach of each five parameters has been now transparently included. The further included information in the sampling plan was found to be complete and fulfilling the requirements of paragraph 7 and 12 of the “Standard: Sampling and surveys for CDM project activities and programme of activities (CDM-EB50-A30-STAN), Version 05.0 (EB86 annex 03), thus accepted.</p> <p>Therefore CAR#05 was closed out.</p>	
<b>Acceptance and Close out by Lead Assessor:</b> <b>Closed</b>	<b>Date:</b> 03/08/2016

Date:	04/12/2013	Raised by:	Assessment Team		
Type:	CAR	Number:	#6	Reference:	PoA-DD checklist
<b>Lead Assessor Comment:</b>					
<div>1. Section C (Part I) of the PoA-DD does not define the roles and responsibilities of personnel as required by paragraph 19(a) of the PoA standard.</div> <div>2. As per the PoA standard paragraph19 (b), “the CME shall develop and implement a management system that includes the following made available to the DOE at the time of validation of the PoA: (b) records of arrangement for training and capacity development for personnel shall be made available to the DOE at the time of validation.”</div> <div>3. As per Section C (Part I) of the PoA-DD, the final CPA will be reviewed by the CME. No procedure for technical review has been defined as required by paragraph 19(c) of the PoA standard.</div> <div>4. Section C (Part I) of the PoA-DD, states that “All project activities will have specific GPS coordinates and as the project activities require significant fixed infrastructure, the CME can readily verify their uniqueness.” It is not clear how the uniqueness will be “readily verified”.</div> <div>5. Measures for continual improvement of the PoA management system have not been mentioned in Section C (part I) of the PoA-DD as required by paragraph 19(f) of the PoA standard.</div>					
<b>Project Participant Response:</b>				<b>Date:</b> 24/02/2014	
<div>1. Paragraph 19(a) of the PoA standard states that “A clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies” and also states in the footnote that it is not necessary to specify the names of personnel, but the descriptions of functions are required. This is stated in the Section C (part I) and also a table to show roles and responsibilities of the CME.</div> <div>2. The management system structure has been developed as stated in Section C (Part I) and this will be implemented when the Programme of Activities starts.</div> <div>3. The procedure for technical review now included in Section C (Part I) of the PoA – DD.</div> <div>4. The statement “All project activities will have specific GPS coordinates and as the project activities require significant fixed infrastructure, the CME can readily verify their uniqueness.” Is now revised and elaborated.</div> <div>5. Measures for continual improvement of the PoA management system has been included in the Section C (part I) of the PoA – DD.</div>					
<b>Documentation Provided by Project Participant:</b>					
Revised PoA-DD					
<b>Information Verified by Lead Assessor:</b>					
The revised PoA-DD Version 2 dated 24/02/2014 has been checked for the revisions made by the PP					
<b>Reasoning for not Acceptance or Acceptance and</b>				<b>Date:</b> 08/05/2014	

<b>Close Out:</b>	
<ol style="list-style-type: none"> <li>1. Section C (Part I) of the PoA-DD defines the roles and responsibilities of the CME in the process of inclusion of a CPA. The table in the same section lists the overall roles and responsibilities of the CDM and the CPA. Hence accepted and closed out.</li> <li>2. The PP has revised the information under the heading “Records of Training and Capacity Development” in Section C (part I) of the PoA-DD. This indicates the arrangement for training and capacity development of personnel. Hence accepted and closed out.</li> <li>3. The PP has now added a paragraph titled “Procedure for technical review of inclusion of CPAs” in Section C (Part I) of the PoA-DD. This is in line with the requirement of paragraph 19(c) of the PoA standard. Hence accepted and closed out.</li> <li>4. The PP has now clarified in Section C (Part I) of the PoA-DD that the uniqueness will be verified through ID numbers. Hence accepted and closed out.</li> <li>5. The PP has now added a paragraph titled “Measures for continuous improvements of the PoA management system” in Section C (Part I) of the PoA-DD. This is in line with the requirement of paragraph 19(f) of the PoA standard. Hence accepted and closed out.</li> </ol>	
CAR #6 closed out	
<b>Acceptance and Close out by Lead Assessor: Closed</b>	<b>Date: 08/05/2014</b>

Date:	04/12/2013	Raised by:	Assessment Team		
Type:	CAR	Number:	#7	Reference:	ER Sheet
<b>Lead Assessor Comment:</b>					
Assumptions					
1. The value of the number of days used for calculations in the baseline and project scenario is different. Please clarify.					
2. The demarcation of lines – red, green and blue is very specific to Lagos. Please clarify the appropriateness of using the terminology for the three lines in the PoA-DD.					
3. Pg14 of the PoA-DD refers to the summation of 4 surveys, how is this figure arrived without the surveys having been realised.					
4. Refer Cell B33 Green Line, a value of 11.2 has been used for Green line, but the value could not be validated against the distances calculated through measuring distances through the google maps. The value reflected on the google map is 8.4. Ref. Parameter DDB : Total distance driven of buses of various sub-categories prior project start.					
5. Refer Cell B35-B38, a value of 0.3, 0.3 and 0.5 has been used in cells B36, B37 and B38 respectively but the basis of determining these figures is an assumption and is not clear.					
6. Refer Cell B69 and B70, specific weight of fuel type ‘x’, default values of 0.745kg/l and 0.825kg/l have been used for gasoline and diesel respectively, the source of the values have not been specified.					
Project emissions					
7. Refer cell 17,18 & 19 a power reference factor of 0.8 has been used, the source of this figure is not clear					
8. During the site visit it was observed that the state of Lagos has frequent power cuts, power back up arrangements and their effect on project emissions is not discussed in the PD					
Leakage					
9. The parameter ‘occupancy rate of vehicle category i is to be monitored, the measurement procedure states that this should be done before the start of the project and specified intervals thereafter - these intervals have not been defined in the PD. – Every other year depending on data availability.					
<b>Project Participant Response:</b>				<b>Date: 24/02/2014</b>	
1. The value of the number of days used for calculations in the baseline and the project scenario is now harmonized and same figures now used.					
2. The use of red, green and blue for Lagos Cable Car is just for convenience and is also known as lines.					

This has been explained in the PoA-DD.

3. As the Programme of Activities is yet to be implemented, the only surveys carried out where those used for the purpose of study for LAMATA and these are the basis for the estimation. When the Programme of Activities is implemented, surveys where applicable will be carried out. This is now explained accordingly in the PoA-DD.
4. The value has been revised in the ER spreadsheet to reflect distance as obtained from google map.
5. As part of the design to integrate the Lagos cable car system to the existing transport system in areas where the cable car is to operate, the cable car stations are to be sited very close to the bus stations. Hence this is sited closely such as to allow a walking distance. The longest distance measured is at Falomo which is less than 200 metres. Hence the values of 0.3, 0.3 and 0.5 km as applied in the ER spreadsheet were conservative figures as actual figures are much lesser than figures applied.
6. The references for the specific weight now included in the ER sheet.
7. Reference for the power factor now included in the ER sheet.
8. Explanation on the power supply issues in Nigeria now included in the PoA-DD. As it is presently evident in the country that the grid power supply is erratic, the Project participant will also have power supply from off-grid generators which would be gas/diesel depending on the available fuel. As a conservative approach, the Emission factor of a captive generation using the Tool to calculate baseline, project and/or leakage emissions from electricity consumption Version 01 has now been calculated (spreadsheet also attached). The higher emission factor between the grid and off-grid emission factor will be used in the ER calculations as this is conservative. This will be calculated after the physical project is completed and before the first monitoring period.
9. The monitoring frequency for the occupancy rate of vehicle category now defined in Section B.7.1 of the PoA-DD.

**Documentation Provided by Project Participant:**

Revised PoA-DD

**Information Verified by Lead Assessor:**

The revised PoA-DD Version 2 dated 24/02/2014 has been checked for the revisions made by the PP

**Reasoning for not Acceptance or Acceptance and Close Out:**

**Date:** 08/05/2014

**Assumptions**

1. The PP has now consistently used 323 days for calculations in the baseline as well as the project scenario in the excel spreadsheet. This has been checked against the Lagos Cable Transit Project Traffic Advisor (pg. 59 - 60); a document prepared for the African Development Bank. Hence accepted and closed out.
2. The PP has retained the demarcation of the lines i.e. red, green and blue in the revised ER spreadsheet and the revised PoA-DD, but has clarified in the PoA-DD (Part II Section B.6.3) that the designations "Blue", "Red", and "Green" are those used in the initial CPA, but the lines are generic and any designation and number of lines can be used. Hence accepted and closed out.
3. The PP has clarified that since the project is yet to be implemented, the only surveys carried out were those used for the purpose of study for LAMATA and these are the basis for the estimation in the PoA-DD. The PP has also mentioned in Appendix 5 of the PoA-DD that the survey will be realised as described in the methodology. It is also mentioned in footnote 10 of the poA-DD that "When the Programme of Activities starts, surveys will be carried out." The applied methodology AMS III.U (page 5) states that "The surveys should commence no later than six months from the commissioning of the project." Hence the justification by the PP is accepted. Hence closed out.
4. Cell B33 in the previous ER sheet is cell B30 in the revised ER sheet. The PP has revised the value to 8.4 which has been validated against the distances calculated through measuring distances through the google maps. Hence accepted and closed out.
5. Cell B35-B38 in the previous ER sheet is cell B32-B35 in the revised ER sheet. The PP has clarified that the values of 0.3, 0.3 and 0.5 are based on longest distance of the cable car station to a bus/taxi station and are conservative estimates. FAR #8 is raised which is to be checked during the first verification of this

project. "Actual distance from the cable car station to a bus/taxi station to be verified during the first verification after the actual construction of the cable car station."

6. Cell B69 and B70 in the previous ER sheet is cell B66 and B67 in the revised ER sheet. The PP has referred to the source [http://en.wikipedia.org/wiki/Diesel\\_fuel](http://en.wikipedia.org/wiki/Diesel_fuel) for the specific weight of gasoline and diesel. The values from this source have also been cross checked with other publically available sources and are found to be appropriate. Hence accepted and closed out.

#### Project emissions

7. The power reference factor of 0.8 used in tab "Project emissions" has now been listed in the "Assumptions" tab with the source also mentioned. Hence accepted and closed out.
8. The PP has now clarified the power shortage and erratic power supply in Nigeria in Section B.6.3 of the PoA-DD. The PP has also stated that given the power situation, power supply is expected from captive generators installed on-site when grid power is not available and all sources of power supply shall be monitored when the Programme of Activities is in operation to calculate the emission factor for the sources of electricity. The PP has submitted two excel sheet which show the calculation of emission factor for "grid generation" and "off-grid generation". The calculation approach has been described in Appendix 4 of the PoA-DD. An ex-ante fixed approach has been used. Appendix 4 states that "The developer is currently working with public entities to obtain the missing fuel data, and when available, the power plant EF will be updated and the grid EF recalculated." Considering that all fuel data is not available, please clarify why an ex-post approach for calculating the grid emission factor should not be followed. Hence open.

#### Leakage

9. The PP has defined the parameter 'occupancy rate of vehicle category i' in section B.7.1 of the PoA-DD. The values presently applied in the calculation have been mentioned in the PoA-DD which is consistent with the ER excel spreadsheet. The PP has also mentioned the monitoring frequency as year 3 and 7 as a 7-year crediting period is the option chosen. This is consistent with the applied methodology. Hence accepted and closed out.

#### CAR #7 open

<b>Acceptance and Close out by Lead Assessor: Open</b>	<b>Date:</b> 08/05/2014
<b>Project Participant Response:</b>	<b>Date:</b> 27/06/2014
8. The PP had revised the paragraph in Appendix 4. The grid emission factor was calculated based on 100% grid connected power plants electricity generation data and 70% fuel consumption data. The PP appreciates the difficulty in sourcing the missing data and has decided to use IPCC default values. Considering the on-going restructuring of the industry due to privatization and the increasing difficulty in collation of data, the PP will prefer to set the GEF as an "Ex- ante" which is considered conservative.	
<b>Documentation Provided by Project Participant:</b>	
Revised POA-DD version 03 dated 27/06/2014	
<b>Information Verified by Lead Assessor:</b>	
Revised POA-DD version 03 dated 27/06/2014 is checked for appropriateness of grid emission factor for the Programme of Activities.	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 08/07/2014
PP submitted combined margin grid emission factor calculation sheet for the Programme of Activities and calculation approach is found to be in line with Tool to calculate emission factor of an electricity system. However, PP is requested to provide evidences for the data used in emission factor calculation for the Programme of Activities. Thus CAR #7 is open.	
<b>Project Participant Response:</b>	<b>Date:</b> 25/07/2014
The data requested had been earlier submitted to the Verifier (the former Lead Assessor but now attached again for the review of the Verifier	
<b>Documentation Provided by Project Participant:</b>	
Annual electricity data for 2010, 2011, 2012 used for the grid calculations	
<b>Information Verified by Lead Assessor:</b>	
Annual electricity data for years 2010, 2011 and 2012 are checked for appropriateness of data considered for grid emission factor of the project activity.	

<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 22/08/2014 Reopen: 06/10/2014
<p>PP submitted annual electricity generation data for years 2010, 2011 and 2012 considered in combined margin grid emission factor of an electricity system. This is found to be appropriate and it is accepted. The methodology computes total emissions from trip origin to trip destination. As such, indirect emissions from the trip origin to the project entry station and from the project exit station to the final trip destination are taken into account. The average distance considered for these trips (<math>TD_{PJ,i,s}</math>) is 300 meters. That is, it is assumed that passengers travel 300 meters in other mode of transport to access the project (or to reach their final destination). This distance seems too short. However principal of conservativeness is considered while estimating indirect emissions.</p> <p>Thus CAR #7 is open.</p>	
<b>Project Participant Response:</b>	<b>Date:</b> 15/10/2014
<p>Project Participant believe that the 300 meters of travel from other mode of transport to access the project is conservative considering the fact that the design of the project activity is fitted into existing modes of transport with the goal of ensuring walking distance interchange between the existing mode of transport station and the project activity station. This was made known to the DOEs during the site visit to some of the proposed project stations where they were able to observe the situation. All the stations of the project activity were sited within the station area of existing mode of transport stations.</p>	
<b>Documentation Provided by Project Participant:</b>	
PoA-DD version 06 dated 14/10/2014	
<b>Information Verified by Lead Assessor:</b>	
PoA-DD version 06 dated 14/10/2014	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 05/11/2014, 14/01/2016
<p>The location of the station has been checked and the aspect has been found to be consistent and thus accepted.</p> <p><b>With reference to 2<sup>nd</sup> UN Information &amp; Reporting Check comments dated 07/01/2016, CAR #7 is re-opened due to the following points:</b></p> <p><b><u>Grid Emission Factor Calculation Spreadsheet:</u></b></p> <ol style="list-style-type: none"> <li>1. In the spreadsheet of grid emission factor, it has been identified that under step 4 (i.e. calculate the OM): <ol style="list-style-type: none"> <li>e. Option B of the "Tool to calculate the emission factor for an electricity system" version 4 is selected to calculate simple OM, which requires fuel consumption data in the project electricity system; however, the fuel consumption data of plant "Okpai" "Afam6" "Ibom" "Omoku" and "Trans Amadi" are not available, several calculated/assumed values are used instead and no relevant explanatory note(s) are found to mentioned in the spreadsheet in this regard.</li> <li>f. In calculating the plant emissions of specific thermal power plant, NCV of diesel is multiplied with carbon emission factor of gas and divided by efficiency of combined cycle, for example, the plants "Egbin" and "Sapele" etc. (cell G13 and G14 of tab "Step 4"); however, it is not clear why the parameters of diesel and gas are used together in calculating the plant emissions of a single specific thermal plant;</li> <li>g. Plant efficiencies (e.g. Efficiency of Combined Cycle before 2000, as per UNFCCC Tool) is applied to calculate several plant emissions (12 out of the 14 identified thermal plants in the project electricity system), which is not in line with the formula (equation 9) related to the selected option B.</li> <li>h. Information on the fuel type(s) of each power plant has not been specified in the spreadsheet (step 4) as per the requirement of "Tool to calculate the emission factor for an electricity system"</li> </ol> </li> </ol>	



version 4.	
<b>Project Participant Response:</b>	<b>Date: 01/02/2016</b>
<b>Grid Emission Factor Calculation Spreadsheet:</b> <ol style="list-style-type: none"> <li>The PP have made the following revision in the spreadsheet of grid emission factor: <ol style="list-style-type: none"> <li>The fuel consumption for the following plants; Okpai &amp; Afam6 {CCGT power plants}, Ibom, Omoku and Trans Amadi {OCGT power plants} are not available as these plants are privately owned and fuel consumption data at these plant is confidential. Therefore, in line with equation 3 of the "Tool to calculate the emission factor for an electricity system (Version 04)" the default values from the IPCC standards were applied to calculate the operating margin emissions as well as the fuel consumed as a proxy. This is considered conservative. PP has stated same in the spreadsheet.</li> <li>The NCV of diesel was not applied in calculating the plant emission of any specific thermal plants, the PP realised that there was a jump in the cells in the sheet 'step 4' of the grid emission factor spreadsheet and has now corrected this accordingly (note that this has no impact on the calculation).</li> <li>The PP realised that there was a jump in the cells in the sheet 'step 4' of the grid emission factor spreadsheet and has corrected this accordingly (this has no impact on the calculation). However, the PP has utilized plant efficiencies in accordance with equation 2 used as proxy for calculations of the fuel consumption for those plants whose data are not available which is supported by equation 5 of the tool.</li> <li>PP has stated clearly the fuel type(s) of each power plant in the spreadsheet in sheet 'step 4'.</li> </ol> </li> </ol>	
<b>Documentation Provided as Evidence by Project Participant:</b>	
<b>Grid Emission Factor Calculation Spreadsheet:</b> <ol style="list-style-type: none"> <li>See Grid emission factor spreadsheet, Sheet 'step 4'.</li> </ol>	
<b>Information Verified by Lead Assessor:</b>	
1. 160127 Emission Factor for Grid Generation revised.xls	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	
<p>The response provided by the CME along with the revised Grid Emission Factor calculation sheet has been reviewed, it has been observed that the reference/ version of the following key CDM Methodological Tool has not been consistently updated in the revised document.</p> <ol style="list-style-type: none"> <li>Methodological Tool to calculate the emission factor for an electricity system (TOOL07), Version 05.0 (EB87 Annex 9)</li> </ol> <p>Thus, procedurally the assessment note with regard to the respective open comments cannot be concluded by the DOE herein based on the above mentioned revised POA and CPA-DD submitted. PP is requested to rectify the inconsistency indicated and resubmit the document.</p>	
<b>Acceptance and Close out by Lead Assessor: Open</b>	<b>Date: 19/02/2016</b>
<b>Project Participant Response:</b>	<b>Date: 24/02/2016</b>
<i>The PP has reviewed the reference/version of the methodological tool used in calculating the emission factor for an electricity system in the earlier submitted document has now updated the document to effect the change in the reference/version of the methodological tool.</i>	
<b>Documentation Provided as Evidence by Project Participant:</b>	
Grid Emission Factor Calculation Spreadsheet "step 4"	
<b>Information Verified by Lead Assessor:</b>	
160224 Emission Factor for Grid Generation revised.xls	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	

1. The correction made to revised grid emission factor calculation sheet has been reviewed and the commented points were found to be resolved in the following manner:

- d. It has been observed that under tab "Step 4", below the table Data Sources, an explanatory note has been added to clarify the OM calculation approach for the five specific privately operated power plants (Okpai, Afam6, Ibom, Omoku, and Trans Amadi) where fuel consumption data are not publicly available. In absence of the fuel consumption data the OM emission factor as well as fuel consumption values for those five power plants has been indirectly computed based on available power generation data of the respective power plants and default values of carbon emission factor (IPCC) for natural gas and efficiency of combined cycle power plant (UNFCCC Tool) following the approach of equation 5 of Methodological Tool to calculate the emission factor for an electricity system, Version 05. Thus accepted.
- e. Under tab "Step 4", it was observed that the concerned error in the application of equation for calculation of Operating Margin was occurred due to cell jump for the cells G13 and G14, that error has been duly rectified in the revised calculation sheet and the application of equation was found to be consistent among all eight gas fired power plants except the five identified privately operated gas fired power plants (Okpai, Afam6, Ibom, Omoku, and Trans Amadi) where fuel consumption data are not publicly available. It was noted that there was no impact on the calculated emission factor value due to the correction made. Thus accepted.
- f. Under tab "Step 4", it was observed that the concerned error in the application of equation for calculation of Operating Margin was occurred due to cell jump, that error has been duly rectified in the revised calculation sheet and the application of equation was found to be in line with the equation 9 of Methodological Tool to calculate the emission factor for an electricity system, Version 05 and consistent among all eight gas fired power plants except the five identified privately operated gas fired power plants (Okpai, Afam6, Ibom, Omoku, and Trans Amadi) where fuel consumption data are not publicly available. It was noted that there was no impact on the calculated emission factor value due to the correction made. Thus accepted.

~~Therefore CAR#07 was closed out.~~

**With reference to 3<sup>rd</sup> UN Information & Reporting Check comments dated 26/05/2016, CAR #07 is re-opened due to the following points:**

**Context:** The POA-DD ver. 12 at page 29 has stated the methodological choice to determine the electricity emission factor for ex-post calculation of the Project Emissions as:

*"[...] Sources of power supply shall be monitored when the project activity is in operation to calculate the emission factor for the sources of electricity and the highest emission factor of the two sources used (grid and off-grid power sources) shall be applied for estimating the direct project emissions as a conservative approach. [...]"*

This indicates that the electricity emission factor will be determined by the CME on ex-post basis considering the sources of the power supplies to the CPAs during their actual operation. Considering the POA as a framework, there can be possible scenario that a future specific CPA to be included under the POA will apply the grid emission factor to determine project emission. Therefore incorrect application of "Tool to calculate the emission factor for an electricity system" version 5 would impact the future included CPAs.

In the given context, CME is requested to provide justification along with necessary correction towards the following points:

- a) As per the Appendix 4 of the POA-DD ver. 12, the Simple OM has been chosen to be calculated following Option B of the Step 4, "Tool to calculate the emission factor for an electricity system" version 05. However it has been observed that the Option B has not been followed uniformly and for five power plants "Okpai" "Afam6" "Ibom" "Omoku" and "Trans Amadi" (where fuel consumption data are not available); the CME has applied equation 5 of the Tool to calculate the fuel consumption of those plants, by applying default energy conversion efficiencies as per appendix 1 of the Tool. However, equation 5 is only applicable under option A of Step 4. Please justify.



- b) In determination of Simple OM, the default energy conversion efficiencies applied above are 60% (assuming new combined cycle power plant) and 39.5% (assuming new open cycle power plant) for those five power plants “Okpai” “Afam6” “Ibom” “Omoku” and “Trans Amadi” as per appendix 1 of the Tool; however, in contrast lower energy conversion efficiencies (i.e. between 25.4% and 36.5%, from 2009 to 2011) have been indicated in other data-available natural gas based power plants, based on the fuel consumption data in the spread sheet.

Considering the higher default energy conversion efficiency applied above (for five power plants) would result in lower grid emission factor and consequently lower project emission from electricity consumption. Therefore the CME is requested to justify the conservativeness of the *ex-ante* determined grid emission factor.

<b>Acceptance and Close out by Lead Assessor:</b> <b>Closed, Re-opened</b>	<b>Date:</b> <del>08/03/2016</del> , 30/06/2016
<b>Project Participant Response:</b>	<b>Date:</b> 15/07/2016
<p>With reference to the earlier statement in the PoA-DD dated 160224 “<u>Sources of power supply shall be monitored when the project activity is in operation to calculate the emission factor for the sources of electricity and the highest emission factor of the two sources used (grid and off-grid power sources) shall be applied for estimating the direct project emissions as a conservative approach</u>”, the PP has reviewed all relevant sections of the PoA-DD.</p> <p>The PP realised that the electricity from the grid is unreliable and characterized with low power generation and supply which has led to power rationing and in most cases outages. Based on the current trend of acute shortages, erratic supply of electricity and complex issues associated with the grid system, the PP do not envisage the CPAs reliance on the grid in the short to medium term and have therefore restricted the focus to the use of the captive/off-grid electricity for all CPAs. The source of its fuel will be monitored when the project activity is in operation to calculate the emission factor of the electricity.</p> <p>The PP has reviewed the respective sections of the PoA DD and mentioned that off grid power plants shall be considered as for all future specific CPAs into the PoA. Hence this parameter will be determined ex-post in line with the “<u>Tool to calculate baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation</u>” Version 02. The need to calculate the grid emission factor is no longer required and as such no further clarification is necessary for the points raised in (a) and (b) above.</p>	
<b>Documentation Provided by Project Participant:</b>	
150716 PoA-DD	
<b>Information Verified by Lead Assessor:</b>	
<ul style="list-style-type: none"> <li>• POA DD, version 13, dated 15/07/2016</li> <li>• CPA DD, version 13, dated 15/07/2016</li> <li>• ER calculation sheet, dated 08/07/2016</li> <li>• Emission Factor for Off-grid Generation Final</li> </ul>	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 03/08/2016

The revised POA-DD has been reviewed and it has been identified that in response to UNFCCC commented points, CME has modified the methodological choice to determine the electricity emission factor for *ex-post* calculation of the Project Emissions. In the revised POA-DD, the source of electricity supply for cable car system has been restricted to dedicated off-grid sources (generators) to ensure the uninterrupted power supply and has excluded the option of grid power supply for cable car system due to unreliability of the grid system of Nigeria. Therefore, in the modified approach the direct project emissions due to power consumption in cable car system will be calculated only based on power supply and emission factor for off-grid sources (generators).

The modification of the methodological choice made in the POA-DD to determine the electricity emission factor for direct project emission calculation was found to be reasonable.

However, while reviewing the correction made by the CME to include the algorithm related to methodological choice for direct project emissions at POA-DD page 18 and 30 and CPA-DD page 19 and 30 - 31, it has been identified that the equation  $PE_{EC,y} = \sum EC_{PJ,j,y} \times EF_{EF,j,y} \times (1 + TDL_{j,y})$  as the methodological choice for Direct Project Emission calculation has been inconsistently mentioned as Equation 4 as per Tool to calculate baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation" Version 02. Please clarify.

Therefore CAR#07 kept open.

<b>Acceptance and Close out by Lead Assessor: Open</b>	<b>Date: 03/08/2016</b>
<b>Project Participant Response:</b>	<b>Date: 05/08/2016</b>
The PP has reviewed the pages 18 and 30 of the PoA-DD and the pages 19 and 30-31 of the CPA-DD appropriately and has now stated the appropriate reference for the equation $PE_{EC,y} = \sum EC_{PJ,j,y} \times EF_{EF,j,y} \times (1 + TDL_{j,y})$ as per "Tool to calculate baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation" Version 02.	
<b>Documentation Provided by Project Participant:</b>	
050816 PoA-DD 050816 CPA-DD	
<b>Information Verified by Lead Assessor:</b>	
<ul style="list-style-type: none"> <li>POA DD, version 14, dated 05/08/2016</li> <li>CPA DD, version 14, dated 05/08/2016</li> </ul>	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date: 08/08/2016</b>
The inconsistency in mentioning equation number for direct project emissions calculation as per Tool to calculate baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation" Version 02 has been found to appropriately rectified in the POA-DD and CPA-DD, thus accepted.	
Therefore CAR#07 was closed out.	
<b>Acceptance and Close out by Lead Assessor: Closed</b>	<b>Date: 08/08/2016</b>

Date:	08/05/2014		Raised by:	Assessment Team		
Type:	FAR	Number:	#8	Reference:	PoA-DD checklist	
<b>Lead Assessor Comment:</b>						
FAR #8 is raised which is to be checked during the first verification of this project. “Actual distance from the cable car station to a bus/taxi station to be verified during the first verification after the actual construction of the cable car station.”						

## A.4 Annex 4: Team Members Statements of Competency

Name: Vijaybhai Shankarbhai Patel

### Status

- Lead Assessor	<input checked="" type="checkbox"/>	- Expert	<input type="checkbox"/>
- Assessor	<input type="checkbox"/>	- Financial Expert	<input type="checkbox"/>
- Local Assessor	<input type="checkbox"/>	- Technical Reviewer	<input type="checkbox"/>

### Scopes of Expertise

<b>1. Energy Industries (renewable / non-renewable)</b>	<input type="checkbox"/>
Technical Area(s):	
<b>2. Energy Distribution</b>	<input type="checkbox"/>
Technical Area(s):	
<b>3. Energy Demand</b>	<input type="checkbox"/>
Technical Area(s):	
<b>4. Manufacturing</b>	<input type="checkbox"/>
Technical Area(s):	
<b>5. Chemical Industry</b>	<input type="checkbox"/>
Technical Area(s):	
<b>6. Construction</b>	<input type="checkbox"/>
Technical Area(s):	
<b>7. Transport</b>	<input type="checkbox"/>
Technical Area(s):	
<b>8. Mining/Mineral Production</b>	<input type="checkbox"/>
Technical Area(s):	
<b>9. Metal Production</b>	<input type="checkbox"/>
Technical Area(s):	
<b>10. Fugitive Emissions from Fuels (solid, oil and gas)</b>	<input type="checkbox"/>
Technical Area(s):	
<b>11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride</b>	<input type="checkbox"/>
Technical Area(s):	
<b>12. Solvent Use</b>	<input type="checkbox"/>
Technical Area(s):	
<b>13. Waste Handling and Disposal</b>	<input type="checkbox"/>
Technical Area(s):	
<b>14. Afforestation and Reforestation</b>	<input type="checkbox"/>
Technical Area(s):	
<b>15. Agriculture</b>	<input type="checkbox"/>
Technical Area(s):	

Approved Member of Staff by:  
Continued Compliance  
confirmation

Siddharth Yadav  
Lisa Brough

Date: 23/01/2014  
13/01/2015

Name: Siddharth  
Yadav

### Status

- Lead Assessor	<input type="checkbox"/>	- Expert	<input checked="" type="checkbox"/>
- Assessor	<input type="checkbox"/>	- Financial Expert	<input type="checkbox"/>
- Local Assessor	<input type="checkbox"/>	- Technical Reviewer	<input type="checkbox"/>

### Scopes of Expertise

<b>1. Energy Industries (renewable / non-renewable)</b>	<input type="checkbox"/>
Technical Area(s):	
<b>2. Energy Distribution</b>	<input type="checkbox"/>
Technical Area(s):	
<b>3. Energy Demand</b>	<input type="checkbox"/>
Technical Area(s):	
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Technical Area(s):	
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Technical Area(s):	
<b>6. Construction</b>	<input type="checkbox"/>
Technical Area(s):	
<b>7. Transport</b>	<input checked="" type="checkbox"/>
Technical Area(s): <i>TA 7.1 Transport</i>	
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Technical Area(s):	
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<b>12. Solvent Use</b>	<input type="checkbox"/>
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Technical Area(s):	
<b>14. Afforestation and Reforestation</b>	<input type="checkbox"/>
Technical Area(s):	
<b>15. Agriculture</b>	<input type="checkbox"/>
Technical Area(s):	

Approved Member of Staff by:

Jonathan  
Hall

Date:

06/02/2012

Name: **Suresh Jain**

### Status

- Lead Assessor	<input type="checkbox"/>	- Expert	<input checked="" type="checkbox"/>
- Assessor	<input type="checkbox"/>	- Financial Expert	<input type="checkbox"/>
- Local Assessor	<input type="checkbox"/>	- Technical Reviewer	<input type="checkbox"/>

### Scopes of Expertise

<b>1. Energy Industries (renewable / non-renewable)</b>	<input type="checkbox"/>
Technical Area(s):	
<b>2. Energy Distribution</b>	<input type="checkbox"/>
Technical Area(s):	
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<b>14. Afforestation and Reforestation</b>	<input type="checkbox"/>
Technical Area(s):	
<b>15. Agriculture</b>	<input type="checkbox"/>
Technical Area(s):	

Approved Member of Staff	<b>Lisa Brough</b>	Date:	<b>31/12/2014</b>
by:			
Continued Compliance confirmation	<b>Lisa Brough</b>		<b>30/10/2015</b>

Name: Mahua Ray Bose

## Status

- Lead Assessor	<input type="checkbox"/>	- Expert	<input type="checkbox"/>	- Statistical Expert	<input checked="" type="checkbox"/>
- Assessor	<input type="checkbox"/>	- Financial Expert	<input type="checkbox"/>		
- Local Assessor	<input type="checkbox"/>	- Technical Reviewer	<input type="checkbox"/>		

## Scopes of Expertise

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Technical Area(s):	
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Technical Area(s):	
<b>15. Agriculture</b>	<input type="checkbox"/>
Technical Area(s):	

Approved Member of Staff  
by:

Siddharth  
Yadav

Date:

12/03/2013

Name: Dominic Etuk

### Status

- Lead Assessor		- Expert	
- Assessor		- Financial Expert	
- Local Assessor	Nigeria	- Technical Reviewer	

### Scopes of Expertise

<b>1. Energy Industries (renewable / non-renewable)</b>	
Technical Area(s):	
<b>2. Energy Distribution</b>	
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<b>3. Energy Demand</b>	
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<b>14. Afforestation and Reforestation</b>	
Technical Area(s):	
<b>15. Agriculture</b>	
Technical Area(s):	

Approved Member of Staff  
by:  
Continued Compliance  
confirmation

Siddharth  
Yadav  
Lisa Brough

Date:

12/09/2013  
30/01/2015



Name: Ajoy Gupta

#### Status

- Lead Assessor		- Expert	
- Assessor		- Financial Expert	
- Local Assessor		- Technical Reviewer	x

#### Scopes of Expertise

<b>1. Energy Industries (renewable / non-renewable)</b>	
Technical Area(s):	
<b>2. Energy Distribution</b>	
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Technical Area(s):	
<b>15. Agriculture</b>	
Technical Area(s):	

Approved Member of Staff by:  
Continued Compliance  
confirmation

Siddharth Yadav  
Lisa Brough

Date: 22/02/2012  
12/01/2015

Name: Juan  
Herrera

### Status

- Lead Assessor	<input type="checkbox"/>	- Expert	<input checked="" type="checkbox"/>
- Assessor	<input type="checkbox"/>	- Financial Expert	<input type="checkbox"/>
- Local Assessor	<input type="checkbox"/>	- Technical Reviewer	<input type="checkbox"/>

### Scopes of Expertise

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<b>15. Agriculture</b>	<input type="checkbox"/>
Technical Area(s):	

Approved Member of Staff  
by:  
Continued Compliance  
confirmation

Siddharth  
Yadav  
Lisa Brough

Date: 02/03/2012  
01/10/2015