



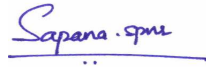
**Validation report form for post-registration changes for  
component project activities  
(Version 01.0)**

*Complete this form in accordance with the instructions attached at the end of this form.*

**BASIC INFORMATION**

<b>Title and UNFCCC reference number of the component project activity (CPA)</b>	Yovi Small Hydro Power Project Ref. no. 9904-0004
<b>Version number of the validation report on CPA PRCs</b>	01.1
<b>Completion date of the validation report on CPA PRCs</b>	23/04/2018
<b>Version number of PoA-DD and CPA-DD applicable to this validation report</b>	PoA-DD Version 08 CPA-DD version 05
<b>Title and UNFCCC ref. no. of the registered PoA into which the CPA is included</b>	Tanzania Renewable Energy Programme Ref. no. 9904
<b>Type(s) of CPA PRCs</b>	<input type="checkbox"/> Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines <input type="checkbox"/> Corrections <input type="checkbox"/> Changes to the start date of the crediting period <input type="checkbox"/> Inclusion of monitoring plan <input checked="" type="checkbox"/> Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools <input checked="" type="checkbox"/> Changes to the project design <input type="checkbox"/> Changes specific to afforestation and reforestation activities
<b>Coordinating/managing entity</b>	Rural Energy Agency (REA)
<b>Host Parties</b>	United Republic of Tanzania
<b>Applied methodologies and standardized baselines</b>	AMS-I.D Grid connected renewable electricity generation, Version 17 AMS-I.F Renewable electricity generation for captive use and mini-grid, Version 02
<b>Mandatory sectoral scopes linked to the applied methodologies</b>	01 - Energy Industries (renewable/non-renewable sources)
<b>Conditional sectoral scopes linked to the applied methodologies, if applicable</b>	Not Applicable
<b>Name and UNFCCC reference number of the DOE</b>	Bureau Veritas India Pvt. Ltd. (BVI) Ref. no. E-0009

Name, position and signature of the approver  
of the validation report on CPA PRCs



Sapana Pednekar

Global Quality Manager - Operations

## SECTION A. Executive summary

The World Bank Group has commissioned Bureau Veritas India Pvt Ltd (here after referred to as the DOE) to validate the post-registration change on its CPA 9904-0004 - Yovi Small Hydro Power Project, included in the registered CDM Programme of Activities no. 9904, titled "Tanzania Renewable Energy Programme". The CPA is located in Yovi, Mululu area, Kilosa District, Morogoro Region, in the United Republic of Tanzania.

The registered PoA is designed to increase access to modern energy services in Tanzania promoting both off-grid (isolated mini-grid) and national grid renewable energy projects in the country. The CME is the Rural Energy Agency (REA) of Tanzania and the World Bank Group is a project participant. The PoA designed such that renewable energy projects in the country can be included into the PoA through either of three categories forming three generic CPAs as follows:

- a) CPA Category 1: this comprises installation of one or more renewable energy technologies (hydro, wind, biomass or PV) not exceeding 15 MW, and supply the generated electricity to the main national grid. The CPAs are required to comply with the requirements of methodology AMS-I.D version 17.
- b) CPA Category 2: this comprises installation of one or more renewable energy technologies (hydro, wind, biomass or PV) not exceeding 15 MW, and supply the generated electricity to an existing mini-grids being operated by the national utility (TANESCO), or to new isolated mini-grids to serve new areas. The CPAs are required to comply with the requirements of methodology AMS-I.F version 02.
- c) CPA Category 3: This comprises installation of one or more renewable energy technologies (hydro, wind, biomass or PV) not exceeding 15 MW, and supply the generated electricity the main national grid and an existing mini-grids being operated by the national utility (TANESCO), and/or to new isolated mini-grids to serve new areas. The CPAs are required to comply with the requirements of both methodology AMS-I.D version 17 and AMS-I.F version 02.

The CPA 9904-0004 is a phased development of a 2.3 MW small hydropower project, starting with 1MW in phase 1 followed by 1.3 MW in phase 2. The CPA is implemented by Yovi Hydro Power Company Ltd. At the time of inclusion, the purpose of the CPA was to provide electricity to a mini-grid around the project area, hence was a category 2 CPA. However during implementation, the project has not supplied electricity to the mini-grid as proposed, but has supplied electricity to the national grid, hence the change in design of the CPA. Besides supplying electricity to the national grid, the CPA implementer still will also provide electricity to the mini-grid. The revised purposed of the CPA is therefore to supply electricity to both the national grid and the mini-grid, thus becoming a category 3 CPA.

This report summarizes the findings of the validation of the post-registration change, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The objective of the validation is to provide a thorough and independent third party assessment of the post-registration changes. In particular, the changes compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the changes meet the applicable CDM requirements and the identified criteria.

The validation scope is defined as an independent and objective review of the revised CPA Design Document (CPA-DD) and other relevant documents. The information in these documents is reviewed against the requirements of paragraph 37 of the CDM M&Ps, the applicability conditions of the selected methodologies and guidance issued by the Board. The validation is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

The validation consisted of the following three phases: i) desk review of the project design document and additional background documents; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion. The overall validation, from Contract Review to Validation Report and Opinion, was conducted using Bureau Veritas Certification's internal procedures.

The first output of the validation process was a list of Clarification Requests, Corrective Action Requests, and Forward Action Requests (CLs, CARs and FARs), presented in Appendix 4. Taking into account this output, the coordinating/managing entity revised its CPA-DD.

In summary, the CPA implementer has made changes the specific-case component project activity CPA 9904-0004 - Yovi Small Hydro Power Project, included in the registered CDM Programme of Activities no. 9904, titled "Tanzania Renewable Energy Programme". The change is proposed as a permanent change to the design of the CPA. At the time of inclusion, the CPA was prosed to supply electricity to a mini-grid and therefore applied methodology AMS-I.F version 02. However, during implementation, the CPA has supplied electricity to the national grid and still intends to supply the mini-grid, although the mini-grid has not been constructed yet. As a result of this change, the CPA now applied two methodologies: AMS-I.F version 02 and AMS-I.D version 17. This has effectively changed the CPA from category 2 CPA to category 3 CPA as described in the registered PoA 9904 (PoA-DD version 08, page 27 and 71). The CME has demonstrated that the modified CPA now complies with all the requirements of category 3 CPAs as described in the PoA-DD, including the eligibility criteria, monitoring plan, applicability of the two methodologies, scale and additionality.

It is the Bureau Veritas' opinion that the post-registration changes meet all relevant UNFCCC requirements for the CDM and the relevant host country criteria. This validation has been carried out under the New regulatory framework that came into effect on 1 June 2017.

In line with paragraph 251 of the CDM project standard for programmes of activities version 01.0, the Bureau Veritas wishes to notify the secretariat of the change to the included CPA 9904-0004 - Yovi Small Hydro Power Project. Considering the CME has request validation of the change under the issuance track, the Bureau Veritas thus submits notification of the post-registration change together with the request for issuance. The verification report for the request for issuance is provided separately.

## **SECTION B. Validation team, technical reviewer and approver**

### **B.1. Validation team member**

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Document review	On-site inspection	Interviews	Validation findings
1.	Team Leader	IR	Onsongo	Samuel	Bureau Veritas (India) Pvt Ltd	x	x	x	x

**B.2. Technical reviewer and approver of the validation report on CPA PRCs**

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Chirchir	James	Bureau Veritas (India) Pvt Ltd
2.	Support Technical Reviewer	IR	Patankar	Sanjay	Bureau Veritas (India) Pvt Ltd
3.	Approver	IR	Pednekar	Sapana	Bureau Veritas (India) Pvt Ltd

**SECTION C. Means of validation****C.1. Document review**

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The first revised CPA Design Document (CPA-DD) submitted by the World Bank Group and additional background documents related to the CPA design were reviewed. Furthermore, cross checks were done between information provided in the revised CPA-DD version 05 dated 06/06/2017, included CPA-DD version 04 dated 25/10/2015 and information from sources other than those used, the Bureau Veritas' sectoral and local expertise, and independent background investigations. A list of documents reviewed and referenced is found in Appendix 3.

To address the Bureau Veritas' corrective action and clarification requests, The World Bank Group revised the CPA-DD and resubmitted it on 10/04/2018. The validation conclusions presented in this report relate to the CPA as described in the final CPA-DD version 5.0 dated 31/01/2018.

**C.2. On-site inspection**

Duration of on-site inspection: 22/04/2017				
No.	Activity performed on-site	Site location	Date	Team member
1.	a) Interview the manager of Yovi Hydro Power Company Limited b) Tour of the Yovi Hydro Power plant c) Interview with the World Bank Group Consultant	Yovi, Morogoro region, Tanzania	22/04/2017	Samuel Onsongo

**C.3. Interviews**

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Kolowoga	Fr. Augustino	Yovi Hydro Power Company Ltd.	22/04/2017	- CPA implementation - Operation of the power plant - Technology employed	Samuel Onsongo
2.	Krishnan	Dr. Balasankari	The World Bank Group	22/04/2017	- Types of changes - Impact of changes on a) additionality of CPA b) Scale of CPA c) Applicability of methodology d) Eligibility criteria e) monitoring f) reasons for the changes - Revision of CPA related	Samuel Onsongo

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**C.4. Clarification requests, corrective action requests and forward action requests raised**

Areas of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with CPA-DD form		1	
Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines			
Corrections	2		
Changes to the start date of the crediting period			
Inclusion of monitoring plan			
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools			
Changes to the project design	1	1	
Changes specific to afforestation and reforestation project activities			
Others (please specify)			
<b>Total</b>	<b>3</b>	<b>2</b>	<b>0</b>

**SECTION D. Validation findings****D.1. Compliance with CPA-DD form**

<b>Means of validation</b>	Document review: Validation involved crosschecks between versions of the CPA-DD form used and the valid CPA-DD forms provided in the CDM website. The CPA-DD was reviewed for compliance with instructions for filling-in CPA-DD forms contained in the forms. The information in the first revised CPA-DD version 05 dated 06/06/2017 and subsequent revisions, was crosschecked with information in the included CPA-DD version 04 dated 25/10/2015, section by section.
<b>Findings</b>	A corrective action request was raised regarding the use of the latest applicable forms. Refer to CAR 1 in Appendix 4
<b>Conclusion</b>	After revisions of the CPA-DD by the CME, in response to corrective actions request, Bureau Veritas Certification hereby confirms that the final revised CPA-DD version 5.0 dated 31/01/2018, complies with the latest form and the instructions for completing of CPA-DD. The Bureau Veritas also confirms that, with the exception of the added information on the change in design of the CPA, the information transferred to the latest valid version of the CPA-DD form is materially the same as that in the included CPA-DD version 04 dated 25/10/2015.

**D.2. Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines**

<b>Means of validation</b>	Not Applicable
<b>Findings</b>	Not Applicable
<b>Conclusion</b>	Not Applicable

**D.3. Corrections**

<b>Means of validation</b>	a) Document review: Reviewed the revised PoA-DD submitted by the CME The information in the revised CPA-DD version 05 dated 06/06/2017 and subsequent revisions was crosschecked with information in the included CPA-DD version 04 dated 25/10/2015, section by section
<b>Findings</b>	A clarification request was raised regarding reference to a standard superseded by the New regulatory Framework, and change in contact information. Refer to CL 1 and CL 2 in Appendix 4.
<b>Conclusion</b>	The CME has made some spelling and grammatical corrections in the revised CPA-DD. Bureau Veritas confirms that, with the exception of the change in design of the CPA, the corrections have no material effect on the information provided in the revised CPA-DD version 05 dated 31/01/2018 when compared with the information in the included CPA-DD version 04 dated 25/10/2015.  According to paragraph 228 of the CDM project standard for programmes of

	activities version 01.0 post-registration changes to an included CPA do not require approval by the Board. However, in line with paragraph 251 of the standard, the Bureau Veritas wishes to notify the secretariat of the change.
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**D.4. Changes to the start date of the crediting period**

<b>Means of validation</b>	Not Applicable
<b>Findings</b>	Not Applicable
<b>Conclusion</b>	Not Applicable

**D.5. Inclusion of monitoring plan**

<b>Means of validation</b>	Not Applicable
<b>Findings</b>	Not Applicable
<b>Conclusion</b>	Not Applicable

**D.6. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools**

<b>Means of validation</b>	Document review and interview with PP to determine: a) changes are in compliance with the methodology b) effect of changes on level of accuracy of monitoring activity c) effect of the change on the conservativeness of emission reduction calculation
<b>Findings</b>	Compliant
<b>Conclusion</b>	<p>Bureau Veritas Certification has established that, due to the change in design of the CPA, the CME has made changes in the monitoring. The CME has revised the monitoring plan to be in line with the monitoring plan for category III CPAs. The monitoring plan for category III CPAs is described on page 78 of the registered PoA-DD version 08 dated 23/04/2014. In the revised monitoring plan, the CME has included monitoring requirement for methodology AMS-I.D version 17, in addition to the monitoring requirement for AMS-I.F version 02, applied at the time of CPA inclusion.</p> <p>In the revised monitoring plan the CME has proposed to monitor the Quantity of net electricity supplied to the national grid in year y, in compliance with AMS-I.D in addition to monitoring the Quantity of net electricity supplied to the mini-grid in year y, in compliance with AMS-I.F.</p> <p><b>Quantity of net electricity supplied to the national grid</b> will be measured using bidirectional energy meters. Monitoring will be done continuous, measured hourly and recording done at least monthly, including crosscheck with records for sold/purchased electricity. The CME proposes that the meters will be calibrated at least once every year. Quality control procedures are also proposed and include monthly check of the monitoring log sheet.</p> <p>Similarly, for the <b>Quantity of net electricity displaced from a mini-grid</b>, measurement will be done using separate energy meters. Monitoring will be done continuous, measured hourly and recording done at least monthly, including crosscheck with records for sold/purchased electricity. The CME also proposes that the meters will be calibrated at least once every year. Quality control procedures are also proposed and include monthly check of the monitoring log sheet.</p> <p>This proposed monitoring plan for the two parameters is in line with the methodologies applied.</p> <p>The CME had determined and reported ex-ante, the CO2 emission factor of the grid, which will be applicable throughout the first crediting period. This factor has been applied in the revised monitoring plan for the CPA in line with the monitoring requirements for category III CPAs under which the modified CPA now fall.</p> <p>From the assessment above, the Bureau Veritas concluded the following: a) the proposed change does not affect the monitoring requirement of the</p>

	<p>methodology AMS-I.F version 02, as the change includes additional monitoring requirement by applying methodology AMS-I.D version 17.</p> <p>b) the proposed change does not affect the level of accuracy of monitoring activities, since the proposed measurement method is in line with the applied methodologies.</p> <p>c) the change does not affect the conservativeness of the emission reduction calculation since the CME has proposed to apply appropriate emission factors: CO<sub>2</sub> emission factor of the grid (fixed ex ante at 0.530 tCO<sub>2</sub>e/MWh) for the amount of electricity supplied to the national grid and the default factor (0.8 tCO<sub>2</sub>e/MWh) for the amount of electricity displaced from a mini-grid.</p> <p>It is the Bureau Veritas opinion that the permanent changes comply with the relevant requirements, related to the permanent changes from the registered monitoring plan and the applied methodology, in the CDM project standard for programmes activities Version 01.0.</p> <p>According to paragraph 228 of the CDM project standard for programmes of activities version 01.0 post-registration changes to an included CPA do not require approval by the Board. However, in line with paragraph 251 of the standard, the Bureau Veritas wishes to notify the secretariat of the change.</p>
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#### D.7. Changes to the project design

<b>Means of validation</b>	<p>Document review, on-site inspection and interview with PP to determine:</p> <ul style="list-style-type: none"> <li>- whether the description of the change accurately reflects the implementation, operation and monitoring of the modified CPA</li> <li>- the impacts of the actual change in the monitoring plan, the level of accuracy of the monitoring activity, the applied methodologies including applicable tools</li> <li>- whether the change would adversely affect the conclusions of the validation report on the included CPA with regard to:               <ul style="list-style-type: none"> <li>(a) The applicability and application of the applied methodologies with which the CPA has been included;</li> <li>(b) The compliance of the monitoring plan with the applied methodologies</li> <li>(c) The level of accuracy and completeness in the monitoring of the CPA;</li> <li>(d) The additionality of the CPA;</li> <li>(e) The scale of the CPA;</li> <li>(f) The inclusion of the CPA in the PoA.</li> </ul> </li> </ul>
<b>Findings</b>	<p>A clarification request and corrective action request was raised regarding the description of the post registration change. Refer to CL3 and CAR 2 in Appendix 4</p>
<b>Conclusion</b>	<p>It is the Bureau Veritas opinion that:</p> <p>a) The CME has provided adequate description of the modification on the CPA to enable understanding of the nature of the change when compared to the included CPA.</p> <p>The included CPA was designed as a category 2 CPA meant to supply electricity to a mini-grid serving the population of a rural area of Kisanga Valley/Ward that mainly comprises of three villages namely Kisanga, Msolwa and Madizini. During implementation, the CPA was connected to the national grid and now supplies to the national grid. The CPA implementer also intends to supply local villages that are not connected to the grid through a mini-grid. This in effect means that the CPA will supply both the national grid and a mini-grid, once fully implemented. After modification, the CPA will move to category 3 CPAs, which comprises CPAs that supply electricity to both a national grid and a mini-grid, as described in the registered PoA DD.</p> <p>(b) An interview with the CME and the CPA implement indicated that at the time the change was taking place, the CPA had already been validated and CPA-DD submitted for inclusion based in the original design, which required the CPA implementer to construct a mini-grid as part of the project (refer to the validation report, doc 4 in Appendix 3 and the PPA doc 11 in Appendix 3). However, by the time Phase 1 of the CPA was being of commissioned, TANESCO had already extended the national Grid to the area and the CPA implementer connected to</p>



the grid before construction of the mini-grid. The Bureau Veritas thus concluded that it was not possible for the PP to have known of the changes prior to inclusion. Since the change does not affect the power generation technology rather the distribution part, it does not affect the CPA's ability to deliver GHG emission reductions.

(c) the changes would not adversely affect the conclusions of the validation report on the included CPA with regard to:

(i) The applicability and application of the applied methodology AMS-I.F version 02. The methodology is still valid for the CPA, for the component of the CPA that will supply electricity to the mini-grid. However, for the component of electricity supplied to the national grid, the methodology is not applicable. For this case, the CME has applied an additional methodology AMS-I.D version 17. This consequently moves that CPA from category 2 to category 3 CPA for which a combined application of the two methodologies is allowed. Refer to generic CPA category 3 in the PoA DD.

The proposed revision complies with all requirements in the applied methodologies AMS-I.F version 02 and AMS-I.D version 17. At the time of inclusion the CME had demonstrated that the CPA complies with the applicability requirements for AMS-I.F version 02 including the monitoring plan. This remains the same for the portion of CPA that will supply electricity to a mini-grid. Given that the CPA will also supply electricity to the national grid, the CME has demonstrated that the CPA meets the applicability requirements, including the monitoring requirements for AMS-I.D version 17.

(ii) the CME has also changed the monitoring plan of the CPA so as to align it with the monitoring plan for category 3 CPAs as described in the POA-DD. The revised monitoring plan complies with the monitoring requirement for the methodologies AMS-I.F version 02 and AMS-I.D version 17. Please refer to section D.6 of this report for the Bureau Veritas assessment of the revised monitoring plan.

(iii) The CME has revised the monitoring plan to ensure that the level of accuracy of the monitoring activities is not reduced, and ensure the completeness in the monitoring of the CPA in line with the requirements contained in the registered monitoring plan for category 3 CPAs under which the CPA now falls, after modification. Please refer to section D.6 of this report for the Bureau Veritas assessment of the revised monitoring plan

(iv) The change does not affect the additionality of the CPA since the CPA was automatically additional due to its micro scale size. There is no change in the generation capacity of the CPA. It remains 2.3 MWh as proposed during inclusion.

(v) There is no change in generation capacity of the CPA hence no effect on the scale of the CPA;

(vi) Despite the change, the CPA is still eligible for inclusion into the registered PoA, as a category III CPA. The CME has demonstrated that the modified CPA meets the eligibility criteria for category 3 CPAs.

It is the Bureau Veritas opinion that the permanent change complies with the relevant requirements, related to the permanent changes in the design of an included CPA, in the CDM project standard for programmes activities Version 01.0.

According to paragraph 228 of the CDM project standard for programmes of activities version 01.0 post-registration changes to an included CPA do not require approval by the Board. However, in line with paragraph 251 of the standard, the Bureau Veritas wishes to notify the secretariat of the change.

**D.8. Changes specific to afforestation and reforestation project activities**

<b>Means of validation</b>	Not Acceptable
<b>Findings</b>	Not Acceptable
<b>Conclusion</b>	Not Acceptable

**SECTION E. Internal quality control**

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The validation report underwent an Internal Technical Review (ITR) before requesting approval of post-registration changes. The ITR is an independent process performed to examine thoroughly that the process of validation has been carried out in conformance with the requirements of the validation scheme as well as internal Bureau Veritas India Pvt Ltd's procedures.

The Team Leader provides a copy of the validation report to the reviewer, including any necessary validation documentation. The reviewer reviews the submitted documentation for conformance with the validation scheme. This will be a comprehensive review of all documentation generated during the validation process. When performing an Internal Technical Review, the reviewer ensures that:

- The validation activity has been performed by the team by exercising utmost diligence and complete adherence to the CDM rules and requirements.
- The review encompasses all aspects related to the CPA which includes CPA design, baseline, additionality, monitoring plans and emission reduction calculations, internal quality assurance systems of the CME/project participant as well as the PoA, closure of CARs and CLs during the validation exercise, review of sample documents.

The reviewer may raise Clarification Requests to the validation team and will discuss these matters with the Team Leader. After the agreement of the responses to the Clarification Requests from the validation team as well as the CME/PP(s), the finalized validation report is accepted for further processing such as uploading via the UNFCCC interface.

**SECTION F. Validation opinion**

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Bureau Veritas Certification has conducted the validation of the post registration change for the CPA 9904-0004 – Yovi Small Hydro Power Project, included in the registered CDM Programme of Activities no. 9904, titled “Tanzania Renewable Energy Programme”. The CPA is located in Yovi, Mululu area, Kilosa District, Morogoro Region, in the Republic of Tanzania.

The validation consisted of the following three phases: i) desk review of the programme design document and additional background documents; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion.

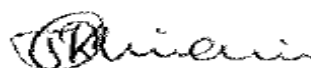
The review of the revised CPA design document, relevant additional information and the subsequent follow-up interviews have provided Bureau Veritas India Pvt Ltd with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the post-registration changes meet all UNFCCC requirements for the CDM relevant to post-registration changes. According to paragraph 228 of the CDM project standard for programmes of activities version 01.0 post-registration changes to an included CPA do not require approval by the Board. It is Bureau Veritas India Pvt Ltd's opinion the post registration changes to the CPA 9904-0004 – Yovi Small Hydro Power Project, do not require approval by the Board.



Mr. Samuel Mayieko

Team Leader

23/04/2018



Mr. James Chirchir

Internal Technical Reviewer

23/04/2018

## Appendix 1. Abbreviations

Abbreviations	Full texts
BVI	Bureau Veritas India Pvt. Ltd. (BVI)
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CL	Clarification Request
CME	Coordinating/Managing Entity
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	Carbon Dioxide Equivalent
CPA	CDM Component Project Activity
CPA-DD	CPA Design Document
DOE	Designated Operational Entity
Ers	Emission Reductions
FAR	Forward Action Request
GHG	Green House Gas(es)
MoV	Means of Validation
PCP	Project Cycle Procedure
PoA	Programme of Activities
PP	Project Participant
PS	CDM project standard for programmes of activities
REA	Rural Energy Agency (United Republic of Tanzania)
SSC	Small Scale
UNFCCC	United Nations Framework Convention on Climate Change
PoA VVS	CDM validation and verification standard for programmes of activities

## Appendix 2. Competence of team members and technical reviewers

Mr. Samuel Onsongo	Bureau Veritas Certification, Kenya	Team Leader, Climate Change Lead Verifier, He has a degree in Physics with over 7 years experience in renewable energy and climate change out of which 5 years have been in CDM. He has been trained on CDM verification, QMS (ISO 9001) and EMS (ISO 14001), as Lead auditor. He has been involved in validation and verification of CDM and Gold Standard projects covering sectoral scope 1 and 3.
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Mr. James Chirchir	Bureau Veritas Certification, Kenya	Technical Reviewer, Climate Change Lead Verifier, James Chirchir – holds a Bachelor's degree in Chemical and Process Engineering and had 4 years experience in manufacturing before joining Bureau Veritas. He is an ISO 9001 and ISO 14000 Lead Auditor and a trained CDM Verifier. He has been involved in validation and verification of over 5 projects.
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Mr. Sanjay Patankar	Bureau Veritas Certification, India	<p>Technical Specialist supporting Technical Reviewer, Climate Change Lead Verifier.</p> <p>Educational qualifications: B.E. (Mech.) M.E. (Mech.)</p> <p>He has over 20 years of experience in engineering manufacturing industry covering various functions like enterprise management, product design, engineering, tool &amp; die design, improvements in the production shop, quality assurance &amp; control and systems planning and implementation, including ISO 9001 based quality management systems. Working for the last 2 years in Bureau Veritas Certification (India) Pvt. Ltd. as Lead Auditor for ISO 9001, 14001 and OHSAS 18001 standards/specifications. Has undergone training related to Clean Development Mechanism and is currently involved in validation and verification of CDM project activities.</p> <p>He holds competence in Technical Area 1.1, 1.2, 2.1 and 3.1.</p>
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### Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	REA	CPA-DD: Yovi Small Hydro Power Project version 05	06/06/2017	CME
2	REA	Ex – ante CER Calculation Sheet version 05	06/06/2017	CME
3	REA	Tanzania Renewable Energy Programme Version 08	23/04/2014	UNFCCC
4	AENOR	Small-Scale PoA CDM Validation Report: “Tanzania Renewable Energy Programme”	06/05/2014	UNFCCC
5	AENOR	Validation report: Yovi Small Hydro Power Project version 02	26/10/2015	UNFCCC
6	EB 61	AMS I.D. Grid connected renewable electricity generation, Version 17	03/06/2011	UNFCCC
7	EB 61	AMS I.F. Renewable electricity generation for captive use and mini-grid, Version 02	03/06/2011	UNFCCC
8	REA	CPA-DD: Yovi Small Hydro Power Project version 04	26/10/2015	UNFCCC
9	REA	CPA-DD: Yovi Small Hydro Power Project version 05	31/01/2018	CME
10	REA	–x - ante CER Calculation Sheet version 5	06/10/2017	CME
11	TANESCO	Power Purchase Agreement	08/05/2015	CME

## Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1. CLs from this validation

CL ID	CL 1	Section no.	A 13.	Date: 07/09/2017
<b>Description of CL</b>				
<i>CL: The CME has made reference to CDM VVS version 09 (section A.13), which has been replaced with a new standard "CDM project standard for programmes of activities" version 01.0. The CME is requested to refer to the latest version of the standard.</i>				
<b>CME response</b>				<b>Date: 09/10/2017</b>
The reference to standard is now revised to "CDM project standard for programmes of activities" version 01.0, EB93 in the revised CPA DD version 05.				
<b>Documentation provided by the CME</b>				
Revised CPA DD, version 05				
<b>DOE assessment</b>				<b>Date: 10/04/2018</b>
The response has been reviewed including the revised CPA-DD and is accepted. The CL 1 is closed.				

CL ID	CL 2	Section no.	Appendix 1	Date : 07/09/2017
<b>Description of CL</b>				
<i>It is noted that the CME has made changes to the contact information in Appendix 1 of the CPA DD which is not reflected in the latest available MoC. The CME is requested to follow the PoA-PCP for the change.</i>				
<b>CME response</b>				<b>Date : 09/10/2017</b>
Latest MoC letter pending from CME				
<b>Documentation provided by the CME</b>				
<b>DOE assessment</b>				<b>Date: 10/04/2018</b>
CME has already submitted a new MoC. Refer to link below: <a href="http://cdm.unfccc.int/ProgrammeOfActivities/poa_db/DEI4JOVUTN7A0936CP1WLMMSGYB58ZF/view">http://cdm.unfccc.int/ProgrammeOfActivities/poa_db/DEI4JOVUTN7A0936CP1WLMMSGYB58ZF/view</a>				
CL 2 is closed				

CL ID	CL 3	Section no.	A.3	Date : 07/09/2017
<b>Description of CL</b>				
<i>Which entity developed the transmission line that evacuates power from the Yovi plant?</i>				
<b>CME response</b>				<b>Date: 09/10/2017</b>
The transmission lines for both the grid export and mini-export belong to TANESCO only. The CPA implementer has signed PPA with TANESCO for power export from the plant.				
<b>Documentation provided by the CME</b>				
Copy of signed PPA agreement between CPA implementer and TANESCO (attachment 02)				
<b>DOE assessment</b>				<b>Date: 12/01/2018</b>
The Bureau Veritas has reviewed the responses from the CME and the revised documents and finds the response acceptable. The CL is closed.				

Table 2. CARs from this validation

CAR ID	CAR 1	Section no.	General	Date: 07/09/2017
<b>Description of CAR</b>				
<i>The CPA-DD form used is not the latest applicable form (please refer to EB 93 Annex 11 for Implementation plan for new CDM regulations)</i>				
<b>CME response</b>				<b>Date: 09/10/2017</b>
The CPA has been revised to the latest CDM CPA DD form version 08 available.				
<b>Documentation provided by the CME</b>				
Revised CPA DD version 05.				
<b>DOE assessment</b>				<b>Date: 12/01/2018</b>
The Bureau Veritas has reviewed the corrective action from the CME and the revised documents and finds the action acceptable. The CAR is closed.				

<b>CAR ID</b>	CAR 2	<b>Section no.</b>	Appendix 6	<b>Date:</b> 07/09/2017
<b>Description of CAR</b>				
While describing the post registration change, the CME has not ensured that it complies with paragraph 243 c of the CDM project standard for Programmes of activities.				
<b>CME response</b>				<b>Date:</b> 09/10/2017
The impact of the changes are summarized as below in line with para 244 of "CDM project standard for programmes of activities", Version 01.0, EB93. The same is now stated in appendix 7 of the revised CPA DD, version 05.				
<b>No</b>	<b>Aspects</b>	<b>Impact</b>		
a	The applicability and application of the applied methodologies	Earlier AMS-I.F was applied. Now both AMS-I.D and AMS-I.F are applied. There is no impact on applicability and application of both applied methodologies as detailed in section B.1 of this CPA DD.		
b	The compliance of the monitoring plan with the applied methodologies	The proposed monitoring plan in section B.5 of this CPA DD is in compliance with both applied methodologies.		
c	The level of accuracy and completeness in the monitoring of the PoA or the CPA compared with the requirements contained in the registered monitoring plan	There is no change in level accuracy of monitoring plan stated in section B.5 and is 100% completely in line with the initial registered monitoring plan		
d	The additionality of the PoA or CPA	No impact		
e	The scale of the CPA	No impact		
f	The eligibility criteria for inclusion of CPAs in the PoA	No impact		
<b>Documentation provided by the CME</b>				
Revised CPA DD, version 05				
<b>DOE assessment</b>				<b>Date:</b> 12/01/2018
The Bureau Veritas has reviewed the corrective action from the CME and the revised documents and finds the action acceptable. The CAR is closed.				

Table 3. FARs from this validation

FAR ID	xx	Section no.	Date: DD/MM/YYYY
<b>Description of FAR</b>			
NA			
<b>CME's response</b>			<b>Date: DD/MM/YYYY</b>
NA			
<b>Documentation provided by CME</b>			
NA			
<b>DOE assessment</b>			<b>Date: DD/MM/YYYY</b>
NA			

## Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	29 December 2017	Initial publication.
Decision Class: Regulatory		
Document Type: Form		
Business Function: Registration		
Keywords: post-registration change, component project activity, validation report		