



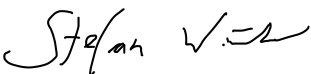
**Verification and certification report form for  
CDM project activities  
(Version 02.1)**

*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 project activity</b>                                                      | Mwenga Hydro Power Project<br>Ref. No: 9550<br>TÜV NORD Ref. No: 8000484804 – 18/033                                                                                                                              |
| <b>Version number of the verification and certification report</b>                                                    | 4.0                                                                                                                                                                                                               |
| <b>Completion date of the verification and certification report</b>                                                   | 13/05/2019                                                                                                                                                                                                        |
| <b>Monitoring period number and duration of this monitoring period</b>                                                | Monitoring Period: 3<br>01/02/2016 – 31/01/2018 (both dates inclusive)                                                                                                                                            |
| <b>Version number of the monitoring report to which this report applies</b>                                           | 7.0                                                                                                                                                                                                               |
| <b>Crediting period of the project activity corresponding to this monitoring period</b>                               | 1 <sup>st</sup> crediting period<br>30/01/2013 – 29/01/2020 (including both days)                                                                                                                                 |
| <b>Project participants</b>                                                                                           | 1. Mwenga Hydro Limited<br>2. Swedish Energy Agency                                                                                                                                                               |
| <b>Host Party</b>                                                                                                     | United Republic of Tanzania                                                                                                                                                                                       |
| <b>Applied methodologies and standardized baselines</b>                                                               | 1. AMS-I.F. version. 2: Renewable Electricity Generation for Captive use and Mini Grid<br><br>2. AMS-I.D. version. 17: Grid connected renewable electricity generation<br><br>No standardized Baseline is applied |
| <b>Mandatory sectoral scopes linked to the applied methodologies</b>                                                  | Scope: 1 / Technical Area: 1.2                                                                                                                                                                                    |
| <b>Conditional sectoral scope(s) linked to the applied methodologies</b>                                              | -                                                                                                                                                                                                                 |
| <b>Estimated amount of GHG emission reductions or GHG removals for this monitoring duration in the registered PDD</b> | 22,739 tCO <sub>2</sub> e <sup>1</sup>                                                                                                                                                                            |

<sup>1</sup> (731/365)\*11,354 tCO<sub>2</sub>e = 22,739 tCO<sub>2</sub>e

|                                                                                                  |                                                                                                                       |
|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Certified amount of GHG emission reductions or GHG removals for this monitoring period</b>    | 19,049 tCO <sub>2</sub> e                                                                                             |
| <b>Name and UNFCCC reference number of the DOE</b>                                               | TÜV NORD CERT GmbH<br>UNFCCC Ref. No.: E-0022                                                                         |
| <b>Name, position and signature of the approver of the verification and certification report</b> | <br>Stefan Winter<br>Final Approver |

**SECTION A. Executive summary**

Mwenga Hydro Limited has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 3rd periodic verification of the project:

**“Mwenga Hydro Power Project”**

with regard to the relevant requirements for CDM project activities.

This verification covers the monitoring period from 01/02/2016 to 31/01/2018 (including both days).

The project activity was registered with UNFCCC on 30/01/2013 and registration ID 9550 with a renewable crediting period. The 1<sup>st</sup> crediting period starts from 30/01/2013 to 29/01/2020 (including both days). <sup>/unfccc/</sup>

The project activity is a run-of-river hydropower project developed on the Mwenga River by Mwenga Hydro Limited in order to strengthen rural electrification in Tanzania. The project will generate and export renewable electricity of approx. 24,000 MWh annually to the TANESCO national electricity grid and nearby processing factories such as Mufindi Tea & Coffee Company Ltd (MTC)<sup>/PPA1/</sup> and Unilever Tea Tanzania Limited<sup>/PPA2/</sup>. A number of local communities located along the power lines are also directly connected through own transformers. The total installed capacity of the project is 3.486 MWe, consisting of 1 generating unit.

The project activity reduces GHG emissions due to generating renewable power using hydropower for export to the TANESCO national electricity grid and the nearby processing factories.

The electricity supplied to the local villages is not considered for this monitoring period due to the challenge of establishing a reasonable baseline.

Table A-1 below summarizes the implementation stages of the project activity.

**Table A-1: Implementation**

| Date        | Details                                                                                            |
|-------------|----------------------------------------------------------------------------------------------------|
| 17/11/ 2010 | Plant construction started                                                                         |
| 08/2012     | Plant construction completed                                                                       |
| 01/09/2012  | Testing and Plant Commissioning                                                                    |
| 17/09/2012  | Issuance of Interconnection Certificate <sup>2</sup> by TANESCO <sup>/INTC/</sup>                  |
| 21/09/2012  | Actual start electricity generation and export to TANESCO <sup>/CO/</sup>                          |
| 23/04/2014  | Signing of PPA between Mwenga Hydro Limited and Mufindi Tea & Coffee Company Ltd <sup>/PPA1/</sup> |
| 22/05/2015  | Signing of PPA between Mwenga Hydro Limited and Unilever Tea Tanzania Limited <sup>/PPA2/</sup>    |
| 05/2016     | Started supplying to Mufindi Tea & Coffee Company Ltd <sup>/MTCI/</sup>                            |
| 01/01/2017  | Started supplying to Unilever Tea Tanzania Limited <sup>/UNI/CER/</sup>                            |

Details of the project location are given in table A-2 below:

**Table A-2: Project Location**

| No.          | Project Location            |
|--------------|-----------------------------|
| Host Country | United Republic of Tanzania |
| Region:      | Iringa                      |

<sup>2</sup> Considered start of commercial operations

|                                 |                                                           |
|---------------------------------|-----------------------------------------------------------|
| Project location address:       | Mwenga Hydro Limited. PO Box 1, Mufindi, Iringa, Tanzania |
| <b>Weir and Silt Collection</b> |                                                           |
| Latitude:                       | 8°37'18.63" S                                             |
| Longitude:                      | 35°41'30.54" E                                            |
| <b>Powerhouse</b>               |                                                           |
| Latitude:                       | 8°37'27.07" S                                             |
| Longitude:                      | 35°41'22.82" E                                            |

Basic technical details of the project are summarized in table A-3.

**Table - A-3:** Technical data of the project activity

| Parameter                        | Unit              | Value                       |
|----------------------------------|-------------------|-----------------------------|
| <b>Turbine</b>                   |                   |                             |
| Quantity                         | set               | 1                           |
| Manufacturer                     |                   | Serman Energy               |
| Type                             |                   | Francis (vertical axis)     |
| Power (turbine axis) @ 100% flow | MW                | 3.612                       |
| <b>Generator</b>                 |                   |                             |
| Quantity                         | set               | 1                           |
| Type                             | -                 | GSAF-V-Synchronous 3 Phases |
| Rated power output capacity      | MW                | 3.486                       |
| Rated voltage (interlinked)      | kV                | 6.6                         |
| Power factor                     | cos $\varphi$     | 0.9                         |
| Frequency                        | Hz                | 50                          |
| Operating Hours (average)        | hours/year        | 8,520                       |
| Maximum Output                   | MWh/year          | 29,000                      |
| Design Flow                      | m <sup>3</sup> /s | 7.0                         |
| Design Head                      | m                 | 60.0                        |
| Load Factor                      | %                 | 82.8                        |
| Net Generation (average)         | MWh/year          | 24,000                      |
| Inefficiencies                   | %                 | 11.7                        |
| Line losses                      | %                 | 4.0                         |
| Headrace                         | m                 | 70                          |
| Penstock                         | m                 | 340                         |
| Manufacturer                     | -                 | Electroputere S.A.          |
| Serial Number                    | -                 | 118957                      |

#### Back-up Diesel Generator details

| Parameter           | Unit | Value       |
|---------------------|------|-------------|
| Manufacturer        | -    | ABB         |
| Type                | -    | AMG0250AA04 |
| Serial Number       | -    | 8803830     |
| Output              | kVA  | 82          |
| Voltage             | V    | 400         |
| Frequency           | Hz   | 50          |
| Speed               | rpm  | 1500        |
| Current             | A    | 118.4       |
| Power Factor        | -    | 0.8         |
| Ambient             | °C   | 40          |
| Year of Manufacture | -    | 2010        |

As a result of this verification, the verifier confirms that:

- all operations of the project are implemented and installed as planned and described in the validated project design document.
- the monitoring plan is in accordance with the applied approved CDM methodologies, i.e., AMS-I.F, version 02.0: "Renewable Electricity Generation for Captive use and Mini Grid", and AMS-I.D. version. 17.0: "Grid connected renewable electricity generation".
- the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately.
- the monitoring system is in place and functional. The project has generated GHG emission reductions.

As the result of this periodic verification, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as follows:

Emission reductions: **19,049 tCO<sub>2</sub>e**

## SECTION B. Verification team, technical reviewer and approver

### B.1. Verification team member

| No. | Role                                      | Type of resource | Last name | First name | Affiliation<br>(e.g. name of central or other office of DOE or outsourced entity) | Involvement in |                    |              |                       |
|-----|-------------------------------------------|------------------|-----------|------------|-----------------------------------------------------------------------------------|----------------|--------------------|--------------|-----------------------|
|     |                                           |                  |           |            |                                                                                   | Desk review    | On-site inspection | Interview(s) | Verification findings |
| 1.  | Team Leader / Verifier / Technical Expert | EI               | Lubanga   | David      | -                                                                                 | x              | x                  | x            | x                     |

### B.2. Technical reviewer and approver of the verification and certification report

| No. | Role                          | Type of resource | Last name | First name | Affiliation<br>(e.g. name of central or other office of DOE or outsourced entity) |
|-----|-------------------------------|------------------|-----------|------------|-----------------------------------------------------------------------------------|
| 1.  | Observer Reviewer             | IR               | ZHAO      | Xuejiao    | TÜV NORD China                                                                    |
| 2.  | Technical reviewer & Approver | IR               | Winter    | Stefan     | TÜV NORD CERT GmbH                                                                |

## SECTION C. Application of materiality

### C.1. Consideration of materiality in planning the verification

In order to ensure a complete, transparent and timely execution of the verification task the team leader has planned the complete sequence of events necessary to arrive at a substantiated final verification opinion.

Various tools have been established in order to ensure an effective verification planning.

#### Materiality Threshold

The verification is based on the materiality threshold identified in table C-1 below:

**Table C-1: Applied Materiality Threshold**

|                                     | Threshold | Related to                                                                                                                                                                                                      |
|-------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/>            | 0.5 %     | Emission reductions or removals for registered CDM project activities achieving a total emission reduction or removal equal to or more than 500,000 tonnes of carbon dioxide equivalent per year <sup>3</sup> ; |
| <input type="checkbox"/>            | 1 %       | Emission reductions or removals for registered CDM project activities achieving a total emission reduction or removal of between 300,000 and 500,000 tonnes of carbon dioxide equivalent per year;              |
| <input type="checkbox"/>            | 2 %       | Emission reductions or removals for registered large-scale CDM project activities achieving a total emission reduction or removal of 300,000 tonnes of carbon dioxide equivalent per year or less;              |
| <input checked="" type="checkbox"/> | 5 %       | Emission reductions or removals for registered small-scale CDM project activities other than registered CDM project activities covered under next category below;                                               |
| <input type="checkbox"/>            | 10 %      | Emission reductions or removals for the type of registered CDM project activities referred to in decision 3/CMP.6, paragraph 38 (referred to as microscale project activities).                                 |

Strategic Analysis

At the beginning of the verification the verification team leader has assessed the nature, scale and complexity of the verification tasks by carrying out a strategic analysis of all activities relevant to the project activity. The team leader has collected and reviewed the information relevant to assess that the designated verification team is sufficiently competent to carry out the verification and to ensure that it is able to conduct the necessary risk analysis.

Risk analysis and detailed audit testing planning

For the identification and assessment of potential reporting risks and to determine the necessary detailed audit testing procedures for residual risk areas the following table is used.

| No. | Risk that could lead to material errors, omissions or misstatements              | Assessment of the risk |                                                                                                                                                       | Response to the risk in the verification plan and/or sampling plan                                                                       |
|-----|----------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                                                                  | Risk level             | Justification                                                                                                                                         |                                                                                                                                          |
|     | Application of data provided by TANESCO for the GEF determination                | Low                    | Possible human error during transfer of data to the GEF spreadsheets and MR.<br><br>Possible mistakes in application of the grid emission factor tool | Thorough cross-check required on the transfer of data to the GEF spreadsheets and MR.<br><br>Keen assessment of GEF calculation approach |
| 2.  | Transfer of data from electricity protocols and invoices to excel ER spreadsheet | Low                    | Possible human error during transfer of data to ER spreadsheet and MR                                                                                 | Thorough cross-check required on the transfer of data to the ER spreadsheet, and MR.                                                     |

On the basis of the risk analysis the verification has been planned. A detailed audit / verification plan has been prepared and submitted to the project participant(s) in due time before the site visit.

<sup>3</sup> A year refers to a period of 12 consecutive months.

## C.2. Consideration of materiality in conducting the verification

Based on the verification planning the verification has been carried out. The concept of materiality has been considered. A breakdown of the chosen approaches is included in the following table.

| <i>Parameter</i>                      | <i>Approach*</i> | <i>Errors* detected</i>             | <i>Findings reference</i> | <i>Corrected</i>                    | <i>Remaining verification risk</i> |
|---------------------------------------|------------------|-------------------------------------|---------------------------|-------------------------------------|------------------------------------|
| <b>EG</b> <sub>BL,y,1</sub>           | CDC              | <input checked="" type="checkbox"/> | CAR 06                    | <input checked="" type="checkbox"/> | Not material                       |
| <b>EG</b> <sub>BL,y,2</sub>           | CDC              | <input checked="" type="checkbox"/> | CAR 07                    | <input checked="" type="checkbox"/> | Not material                       |
| <b>EF</b> <sub>CO<sub>2</sub>,y</sub> | CDC              | <input checked="" type="checkbox"/> | CL 01                     | <input checked="" type="checkbox"/> | Not material                       |
| <i>Aggregate</i>                      |                  |                                     |                           |                                     | Materiality threshold not exceeded |

\*) incl. omissions and misstatements

+) Verification Approaches:

CDC: Complete data check of data including all data aggregation steps

NDC: Non-complete data check – omissions not material

SPL: Sampling approach (all data available)

ASP: Acceptance Sampling

COM: Data check at higher data aggregation levels and sampling at original data levels

The verification was basically carried out as per the verification plan. However, based on the actual situation on-site and the errors, omissions and misstatements identified during the verification minor deviations from the original plan occurred. However, due to the insignificance no major revision of the overall plan was required

## SECTION D. Means of verification

### D.1. Desk/document review

During the desk review all documents initially provided by the client and publicly available documents relevant for the verification were reviewed. The main documents are listed below:

- the registered PDD including the monitoring plan<sup>/PDD1/</sup>,
- the revised PDD including the monitoring plan<sup>/PDD2/</sup>,
- the last revision of the validation report<sup>/VAL/</sup>,
- the monitoring report, including the claimed emission reductions for the project<sup>/MR/</sup>,
- the emission reduction calculation spreadsheet<sup>/ER/</sup>.

Other supporting documents, such as publicly available information on the UNFCCC website and background information were also reviewed

### D.2. On-site inspection

| Duration of on-site inspection: 16/05/2018 |                                                     |                 |            |                |
|--------------------------------------------|-----------------------------------------------------|-----------------|------------|----------------|
| No.                                        | Activity performed on-site                          | Site location   | Date       | Team member    |
| 1.                                         | Opening Meeting, MR, ER, data, and documents review | Mufindi, Iringa | 16/05/2018 | Lubanga, David |
| 2.                                         | Metering Stations (MTC, Unilever)                   | Mufindi, Iringa | 16/05/2018 |                |
| 3.                                         | Power plant inspection                              | Mufindi, Iringa | 16/05/2018 |                |
| 4.                                         | Reporting and Closing Meeting                       | Mufindi, Iringa | 16/05/2018 |                |

### D.3. Interviews

| No. | Interviewee |            |                                          | Date       | Subject                       | Team member    |
|-----|-------------|------------|------------------------------------------|------------|-------------------------------|----------------|
|     | Last name   | First name | Affiliation                              |            |                               |                |
| 1.  | Kottulinsky | Franz      | Director/ Mwenga Hydro Ltd <b>/IM01/</b> | 16/05/2018 | PRC, Future plans, Timelines, | Lubanga, David |

|    |          |            |                                                      |  |                                                                                                             |  |
|----|----------|------------|------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------|--|
|    |          |            |                                                      |  | Data (GEF & generation)                                                                                     |  |
| 2. | Massawe  | Deograsias | Finance Manager/<br>Mwenga Hydro<br>Ltd /IM01/       |  | Implementation<br>dates<br>PPAs, MTC<br>issues,<br>Invoices,<br>general issues<br>Data (GEF,<br>generation) |  |
| 3. | Emmanuel | Lydia      | Operations<br>Manager/<br>Mwenga Hydro<br>Ltd /IM02/ |  | Connections<br>Shutdowns<br>Invoicing                                                                       |  |
| 4. | Mamuya   | Rebecca    | Factory<br>Manager/Unilever,<br>/IM02/               |  | Connection<br>dates,<br>Roles,<br>Invoicing<br>Contract                                                     |  |
| 5. | Kiliwa   | Zawadi     | Plant Operator,<br>Mwenga Hydro<br>Ltd /IM02/        |  | General<br>operations,<br>Roles,<br>Changes,<br>Shutdowns,<br>implementation                                |  |

#### D.4. Sampling approach

##### D.4.1 Sampling during monitoring

|                                     |                                                                                    |                                 |                             |            |             |
|-------------------------------------|------------------------------------------------------------------------------------|---------------------------------|-----------------------------|------------|-------------|
| <input checked="" type="checkbox"/> | No sampling approach has been used by the PP to determine the monitored parameters |                                 |                             |            |             |
| <input type="checkbox"/>            | A sampling approach has been taken for the following monitored parameter(s):       |                                 |                             |            |             |
|                                     | Parameter                                                                          | Sampling approach <sup>1)</sup> | Sampling Type <sup>2)</sup> | Population | Sample Size |
|                                     |                                                                                    |                                 |                             |            |             |
|                                     |                                                                                    |                                 |                             |            |             |

<sup>1)</sup> Sampling Approaches:

SiRS: Simple Random Sampling  
 StRS: Stratified Random Sampling  
 SS: Systematic Sampling  
 CS: Cluster Sampling  
 MSS: Multi-stage Sampling

<sup>2)</sup> Sampling Types:

PS: Parameter Sampling

##### D.4.2 Sampling approaches during verification

|                                     |                                                                                          |                                 |                             |            |             |
|-------------------------------------|------------------------------------------------------------------------------------------|---------------------------------|-----------------------------|------------|-------------|
| <input checked="" type="checkbox"/> | No sampling approach has been used by the VT to verify the monitored parameters          |                                 |                             |            |             |
| <input type="checkbox"/>            | A sampling approach has been applied by the VT for the following monitored parameter(s): |                                 |                             |            |             |
|                                     | Parameter                                                                                | Sampling approach <sup>1)</sup> | Sampling Type <sup>2)</sup> | Population | Sample Size |
|                                     |                                                                                          |                                 |                             |            |             |
|                                     |                                                                                          |                                 |                             |            |             |

<sup>1)</sup> Sampling Approaches:

SiRS: Simple Random Sampling



StRS: Stratified Random Sampling  
 SS: Systematic Sampling  
 CS: Cluster Sampling  
 MSS: Multi-stage Sampling

<sup>2)</sup> Sampling Types:

AS: Acceptance Sampling  
 PS: Parameter Sampling  
 COM: Full data check at higher data aggregation levels and sampling at original data levels

During the on-site verification, no sampling approach has been used by the verification team to verify the reported values for the monitored parameters as listed in section D.2 of the MR. All electricity data listed in the ER spreadsheet were 100% checked and reviewed against the submitted electricity protocol and cross-checked with the sales invoices

#### D.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

| Areas of verification findings                                                                                                  | No. of CL | No. of CAR | No. of FAR |
|---------------------------------------------------------------------------------------------------------------------------------|-----------|------------|------------|
| Compliance of the monitoring report with the monitoring report form (E.1)                                                       | 0         | 2          | 0          |
| Compliance of the project implementation and operation with the registered PDD (E.3)                                            | 0         | 3          | 0          |
| Post-registration changes (E.4)                                                                                                 | 0         | 1          | 0          |
| Compliance of the registered monitoring plan with the methodologies including applicable tools and standardized baselines (E.5) | 0         | 0          | 0          |
| Compliance of monitoring activities with the registered monitoring plan (E.6)                                                   | 0         | 0          | 0          |
| Compliance with the calibration frequency requirements for measuring instruments (E.7)                                          | 0         | 2          | 0          |
| Assessment of data and calculation of emission reductions or net removals (E.8)                                                 | 1         | 0          | 0          |
| Assessment of reported sustainable development co-benefits (E.9)                                                                | 0         | 0          | 0          |
| Global stakeholder consultation (E.10)                                                                                          | 0         | 0          | 0          |
| Others (please specify)                                                                                                         | 0         | 0          | 0          |
| <b>Total</b>                                                                                                                    | <b>1</b>  | <b>8</b>   | <b>0</b>   |

### SECTION E. Verification findings

#### E.1. Compliance of the monitoring report with the monitoring report form

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                               |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <p>A draft monitoring report was submitted to the verification team by the project participants. The DOE has made this report publicly available prior to the start of the verification activities. No comments were received.</p> <p>By means of the UNFCCC website it has been checked whether the latest applicable MR template CDM-MR-FORM has been used.</p> <p>Further it has been checked whether the latest instructions for filling out the MR template have been followed. Every section has been checked against the respective guidance.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> <li>• /MR/</li> <li>• /MRT/</li> <li>• /unfccc/</li> </ul> |                                                                                                                                               |
| <b>Findings</b>              | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | The latest reporting template CDM-MR-FORM as listed on the UNFCCC website has been used for the Monitoring Report to be uploaded.             |
|                              | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The latest instructions for filling out the MR have been followed. No adverse finding has been identified in the course of this verification. |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The respective requirements have widely been complied with; however; the                                                                      |

|                   |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                 |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                          | following issues needed to be addressed in this context:<br>CAR 03, CAR 05                                                                                                                      |
| <b>Conclusion</b> | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                     | No CARs / CLs have been raised in this context. No correction was required in the context. The project is in line with the respective requirements.                                             |
|                   | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                          | The raised CARs / CLs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4. |
|                   | The verification team has checked all sections of the MR and confirms by means of comparing the MR that has been used with the standardized MR template.<br>After appropriate corrections were carried out by the project participant it can be confirmed the latest instructions for filling out the MR have been followed. |                                                                                                                                                                                                 |

**E.2. Remaining forward action requests from validation and/or previous verifications**

During the validation the validating DOE might have raised issues that could not be closed or resolved during the validation stage. For this purpose, FARs might have been raised. Likewise, FARs might have been raised in the course of previous verifications.

In the course of this verification the latest version of the PDD <sup>/PDD2/</sup> and the previous verification report <sup>/VER/</sup>, where applicable, have been checked in order to identify any remaining forward action requests. For the current monitoring period the following applies:

**(i) Open issues from validation:**

|                                     |                                                                                                                                                                |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | There were no open issues which have been addressed in the latest version of the validation report.                                                            |
| <input type="checkbox"/>            | All open issues from the validation have been appropriately addressed in the context of previous verifications.                                                |
| <input type="checkbox"/>            | All issues related to the validation have been appropriately addressed in the course of the current monitoring period (for details please refer to appendix 4) |
| <input type="checkbox"/>            | The following issues related to the validation have <b>not</b> yet been appropriately addressed (for details please refer to appendix 4):<br>N/A               |

**(ii) Open issues from previous verifications:**

|                                     |                                                                                                                                                                           |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/>            | N/A – as this is the first monitoring period for this CDM project activity.                                                                                               |
| <input checked="" type="checkbox"/> | There were no open issues which have been addressed in the previous verification report                                                                                   |
| <input type="checkbox"/>            | All issues related to the previous verification have been appropriately addressed in the course of the current monitoring period (for details please refer to appendix 4) |
| <input type="checkbox"/>            | The following issues related to the previous verification have <b>not</b> yet been appropriately addressed (for details please refer to appendix 4):<br>N/A               |

**E.3. Compliance of the project implementation and operation with the registered project design document**

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <p>By means of an in-depth review of the registered and approved revised PDD and the checks carried out during the on-site visit an assessment has been carried out whether the project has been implemented and operated in line with the latest approved version of the PDD and whether all physical features of the project are in place.</p> <p>The verification team has checked the information in the monitoring report and compared against the registered PDD.</p> <p>During the onsite inspection, the verification team has checked the project location, implementation, technology applied, project equipment, metering and monitoring system and compared against the information in the registered PDD.</p> <p>Interviews with operational personnel have been carried out, generation records, equipment / instrument specifications were checked in this context.</p> <p>The following sources of information have been used in this context:</p> |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                             |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <ul style="list-style-type: none"> <li>• /PDD1/PDD2/</li> <li>• /MR/</li> <li>• /ER/</li> <li>• /IM01/</li> <li>• /IM02/</li> <li>• /unfccc/</li> </ul>                                                                     |
| <b>Findings</b>   | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | The project has been implemented as described in the latest version of the PDD as well as in section B.1 of the monitoring report. No deviations thereof have been identified in the course of this verification.           |
|                   | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The following deviations from the registered project design and or the project description in the MR have been identified in the course of this verification (for further details please refer to section E.4):<br>N/A      |
|                   | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | In this context the following CARs, CLs have been raised:<br>CAR 01, CAR 02                                                                                                                                                 |
|                   | <i>In case of phased implementation:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                             |
|                   | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | N/A                                                                                                                                                                                                                         |
|                   | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The phased implementation has correctly and in sufficient detail been described in the latest version of the PDD.                                                                                                           |
|                   | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The description in section B.1 of the MR differs in content or the level of detail from the latest version of the PDD. However, the description in the MR is correct and reflects the situation during the site inspection. |
| <b>Conclusion</b> | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The project description in the PDD/MR is not deemed sufficient. The detailed implementation timeline is as follows:<br>N/A                                                                                                  |
|                   | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | No CARs / CLs have been raised in this context. No correction was required in the context. The project is in line with the respective requirements.                                                                         |
|                   | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | The raised CARs / CLs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.                             |
|                   | <p>During the verification an onsite visit was carried out. On the basis of this site visit and the reviewed project documentation it can be confirmed that w.r.t. the realized technology, the project equipment, as well as the monitoring and metering equipment, the project has been implemented and operated as described in the latest PDD version.</p> <p>After appropriate corrections were carried out by the project participant based on the above the DOE could confirm in accordance to the PRC approved.</p> |                                                                                                                                                                                                                             |

**E.4. Post-registration changes**

- ☐ By means of site visit, document check and interview it could be verified that the project is implemented and operated in line with the registered PDD and the applied methodology.
- ☒ Post registration changes have been identified and are assessed in detail in the subsequent steps.

**E.4.1. Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines**

It has been checked whether Temporary deviations from the registered monitoring plan (TDfrMP) or Temporary deviations from monitoring methodology or standardized baseline (TDfMM) have been applied during this monitoring period. The result is summarized in the table below.

|                                     |                                                                                                                                                                                                                                     |       |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <input checked="" type="checkbox"/> | No Temporary deviations from the registered monitoring plan (TDfrMP) or Temporary deviations from monitoring methodology or standardized baseline (TDfMM).have been submitted to the UNFCCC prior to the current monitoring period. |       |
| <input type="checkbox"/>            | The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC                                                                                                                                                |       |
|                                     | 1                                                                                                                                                                                                                                   | Title |

|                                     |                                                                                                                                                                                                                                                                                            |                                                                                             |  |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--|
|                                     | Status                                                                                                                                                                                                                                                                                     | <input type="checkbox"/> under approval; <input type="checkbox"/> approved (approval No.: ) |  |
|                                     | Appr.date                                                                                                                                                                                                                                                                                  |                                                                                             |  |
|                                     | Ref. No.                                                                                                                                                                                                                                                                                   |                                                                                             |  |
|                                     | 2                                                                                                                                                                                                                                                                                          | Title                                                                                       |  |
|                                     | Status                                                                                                                                                                                                                                                                                     | <input type="checkbox"/> under approval; <input type="checkbox"/> approved (approval No.: ) |  |
|                                     | Appr.date                                                                                                                                                                                                                                                                                  |                                                                                             |  |
|                                     | Ref.No.                                                                                                                                                                                                                                                                                    |                                                                                             |  |
| <input checked="" type="checkbox"/> | During the verification of the current MP no need for a TDfrMP or TDfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA                                                                                                          |                                                                                             |  |
| <input type="checkbox"/>            | An approval of the following TDfrMP or TDfMM is to be requested from the EB for the current MP as appendix of the project standard does not apply. Please refer to the related PRC report submitted along with this issuance request for further details w.r.t. the assessment of the PRC. |                                                                                             |  |
|                                     | 1                                                                                                                                                                                                                                                                                          | Issue:                                                                                      |  |
|                                     | 2                                                                                                                                                                                                                                                                                          | Issue:                                                                                      |  |
| <input type="checkbox"/>            | The following TDfrMP or TDfMM for which appendix 1 of the PS is applicable have been applied:                                                                                                                                                                                              |                                                                                             |  |
|                                     | 1                                                                                                                                                                                                                                                                                          | Issue:                                                                                      |  |
|                                     | 2                                                                                                                                                                                                                                                                                          | Issue:                                                                                      |  |

#### E.4.2. Corrections

It has been checked whether any corrections to project information or parameters fixed at validation have been approved during this monitoring period or submitted with this monitoring report. The result is summarized in the table below.

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |                                                                                                                                                                                                                                                                |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/>            | During the verification of the current MP no need for corrections has been identified.                                                                                                                                                                                                                                                                                                                                                                        |        |                                                                                                                                                                                                                                                                |
| <input checked="" type="checkbox"/> | The following corrections have been applied during this monitoring period:                                                                                                                                                                                                                                                                                                                                                                                    |        |                                                                                                                                                                                                                                                                |
|                                     | 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Issue: | Contact information for Project Participants has been updated.                                                                                                                                                                                                 |
|                                     | 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Issue: | Editorial Changes due to update of the CDM-PDD-FORM from version 5.0 to version 10.1.                                                                                                                                                                          |
|                                     | 3.                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Issue: | The rural network around the project activity has grown organically and expanded since commissioning. Therefore, the stated number of villages in the initial PDD has been revised to indicate that the electricity supply is not confined to only 14 villages |
|                                     | The PDD has been revised accordingly:<br>(New) version No.: 14<br>Revision date: 07/05/2019                                                                                                                                                                                                                                                                                                                                                                   |        |                                                                                                                                                                                                                                                                |
|                                     | It is confirmed that the updated / corrected information is an accurate reflection of the actual project information and that the corrected parameters are in accordance with the applied methodology and the monitoring plan.                                                                                                                                                                                                                                |        |                                                                                                                                                                                                                                                                |
|                                     | <input type="checkbox"/> A related post registration change has been submitted prior to the issuance request. The approval has been received on DD/MM/YYYY via approval number PRC-XXXX-00Z.<br><input checked="" type="checkbox"/> A related post registration change is submitted along with this issuance request. Please refer to the related PRC report submitted along with this issuance request for further details w.r.t. the assessment of the PRC. |        |                                                                                                                                                                                                                                                                |

A former correction had been submitted. The approval had been received on 21/10/2015 via approval number PRC-9550-001.

**E.4.3. Change to the start date of the crediting period of the project activity**

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | N/A - as this is not the first verification within the crediting period                                                                                                                                                                                                                                                                                                                                                                                              |
| <input type="checkbox"/>            | The PPs do not intend to change the start date of the crediting period.                                                                                                                                                                                                                                                                                                                                                                                              |
| <input type="checkbox"/>            | As the change in the start date was below the related time period as indicated in PS § 277 and § 278 no prior approval was required but only a notification. This notification has been submitted by the PP without involvement of the DOE. The change and new start date has been checked from the related UNFCCC project webpage.                                                                                                                                  |
| <input type="checkbox"/>            | The PPs intend to change the start date of the crediting period. As the intended change in start date beyond the related time period as indicated in PS § 279 prior approval by the Board is required. For detailed assessment of the change please refer to related PRC validation report. As per assessment in this report the DOE confirms that the change to the start date of the crediting period are in line with the related requirements of the VVS and PS. |
| <input type="checkbox"/>            | The approval to change the start date of the crediting period has been received on DD/MM/YYYY via approval number PRC-XXXX-00Z                                                                                                                                                                                                                                                                                                                                       |

**E.4.4. Inclusion of a monitoring plan**

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | N/A - as this monitoring plan was part of the registered PDD                                                                                                                                                                                                                                                                                                                                                                                |
| <input type="checkbox"/>            | In line with PS § 281 or § 282 the PP has forwarded a monitoring plan to the DOE for validation. No prior approval of the monitoring plan was required as the PP in line with PS § 282 wished to submit the monitoring plan together with the request for issuance for the first monitoring period. Please refer to the related PRC report submitted along with this issuance request for further details w.r.t. the assessment of the PRC. |
| <input type="checkbox"/>            | In line with § 282 the PP submitted a monitoring plan prior to the submission of the request for issuance for validation to the DOE. A DOE has assessed the monitoring plan in line with related VVS requirements and submitted a related PRC report for prior approval. The approval has been received on DD/MM/YYYY via approval number PRC-XXXX-00Z.                                                                                     |

**E.4.5. Permanent changes from registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other applied standards or tools**

It has been checked whether any permanent changes from the registered monitoring plan (PCfrMP) or applied methodologies (PCfMM) including standardized baselines (PCfSB) have been approved prior or during this monitoring period or submitted with this monitoring report. The result is summarized in the table below.

|                                     |                                                                                                                                                                                          |           |                                                                            |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | No PCfrMP, PCfMM or PCfSB have been submitted to the UNFCCC prior to the current monitoring period                                                                                       |           |                                                                            |
| <input type="checkbox"/>            | The following PCfrMP, PCfMM or PCfSB have been approved or are under approval by the UNFCCC                                                                                              |           |                                                                            |
|                                     | 1                                                                                                                                                                                        | Title     |                                                                            |
|                                     |                                                                                                                                                                                          | Status    | <input type="checkbox"/> under approval; <input type="checkbox"/> approved |
|                                     |                                                                                                                                                                                          | Appr.date |                                                                            |
|                                     |                                                                                                                                                                                          | Ref. No.  |                                                                            |
| <input type="checkbox"/>            | During the verification of the current MP no need for a PCfrMP, PCfMM or PCfSB has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA |           |                                                                            |
| <input type="checkbox"/>            | An approval of the following PCfrMP, PCfMM or PCfSB is to be requested from the EB for the current MP as appendix of the project standard does not apply.                                |           |                                                                            |
|                                     | 1                                                                                                                                                                                        | Issue:    |                                                                            |
|                                     | 2                                                                                                                                                                                        | Issue:    |                                                                            |
| <input checked="" type="checkbox"/> | The following PCfrMP, PCfMM or PCfSB for which appendix 1 of the PS is applicable have been applied:                                                                                     |           |                                                                            |

|   |        |                                                                                                                                                                                                                                                                                                                                                                              |
|---|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Issue: | Calibration frequency indicated as 24 months for ISKRA meters and 12 months for EDM meters have been removed from the revised PDD. The manufacturer specifications are followed.<br>A related post registration change is submitted along with this issuance request. Please refer to the related PRC report submitted along with this issuance request for further details. |
|---|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### E.4.6. Changes to the project design

It has been checked whether any changes to the project design (CoPD) have been approved prior or during this monitoring period or submitted with this monitoring report. The result is summarized in the table below.

|                                     |                                                                                                                                                                        |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/>            | No CoPD has been submitted to the UNFCCC prior to the current monitoring period                                                                                        |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <input checked="" type="checkbox"/> | The following CoPD have been approved or are under approval by the UNFCCC                                                                                              |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                     | 1                                                                                                                                                                      | Title      | <ul style="list-style-type: none"> <li><b>Section A.3, Project Design:</b> Changes to project design due to site geography mean that small water channel and low head closed conduit runs 70m rather than 50m as in registered PDD</li> <li><b>Section A.3, Powerhouse Flow Requirements:</b> After some testing and environmental monitoring, the final Water Use Permit was issued with a requirement of 1m<sup>3</sup>/s environmental flow for maintenance of the river during periods of low flow, rather than at 2.5m<sup>3</sup>/s as estimated in registered PDD</li> <li><b>Section A.3, Electromechanical Equipment:</b> The type of turbine and the name plate data of the turbine and alternator have not altered in any way. During routine operational tests conducted over the course of wet seasons of 2013 and 2014, the PO was able to determine the maximum instantaneous capacity available out of the turbine, and subsequently the generator terminals. This information has been added as a footnote in this revised PDD</li> <li><b>Section A.3 Distribution Network:</b> Additional rural distribution infrastructure is larger than that described in the registered PDD. 35 km of minor spur lines have now been installed rather than 34 km as estimated in the registered PDD. An estimated 40 km of LV distribution lines have now been installed within the various target villages rather than 30 km as estimated in the registered PDD. These are however outside the boundary of the registered CDM project and no CERs are claimed for this element of the project.</li> <li><b>Section B.6.1 and B.6.2:</b> Clarification that the Simple Adjusted OM is calculated based on the Ex ante data vintages Option for the estimates appearing in this PDD. However, as stated in the Monitoring Plan, Ex Post monitoring shall be used.</li> <li><b>Section B.7.3:</b> clarification that the grid emission factor will be calculated in accordance with ex-post monitoring procedures.</li> </ul> |
|                                     |                                                                                                                                                                        | Status     | <input type="checkbox"/> under approval; <input checked="" type="checkbox"/> approved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                     |                                                                                                                                                                        | Appr. date | 21/10/2015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                     |                                                                                                                                                                        | Ref. No.   | PRC-9550-001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                     | 2                                                                                                                                                                      | Title      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                     |                                                                                                                                                                        | Status     | <input type="checkbox"/> under approval; <input type="checkbox"/> approved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                     |                                                                                                                                                                        | Appr. date |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                     |                                                                                                                                                                        | Ref. No.   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <input type="checkbox"/>            | During the verification of the current MP no need for a CoPD has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <input type="checkbox"/>            | An approval of the following CoPD is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.                              |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                     | 1                                                                                                                                                                      | Issue:     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                     | 2                                                                                                                                                                      | Issue:     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

|                                     |                                                                                    |                                                                                                                                                                                                                                          |  |
|-------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <input checked="" type="checkbox"/> | The following CoPD for which appendix 1 of the PS is applicable have been applied: |                                                                                                                                                                                                                                          |  |
| 1                                   | Issue:                                                                             | The PDD has been revised to remove the specific name of MTC processing factory, as single buyer, to allow the project activity to supply electricity to other eligible processing factories/facilities nearby besides the national grid. |  |

**E.4.7. Changes specific to afforestation and reforestation project activities**

|                                     |                                                                                        |
|-------------------------------------|----------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | N/A. The project activity is not an afforestation and reforestation project activities |
|-------------------------------------|----------------------------------------------------------------------------------------|

**E.5. Compliance of the registered monitoring plan with the methodology including applicable tools and standardized baselines**

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------|---------|--------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | By means of comparison of the MR with<br>(i) the applied CDM methodology<br>(ii) all applicable CDM Meth tools and<br>the verification team has checked whether the MP is in compliance with the MP related requirements of the applied methodology / tools.<br>The following sources of information have been used in this context: <ul style="list-style-type: none"> <li>• /MR/</li> <li>• /AMS/</li> <li>• /TL/</li> <li>• /unfccc/</li> </ul> |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
| <b>Findings</b>              | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                | The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD)                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The breakdown of MP accordance of the referenced tools is as follows:                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1                                                                                                                                                                                                                                                                        | <table border="1"> <tr> <td>Title (of the tool)</td><td>Tool to calculate the emission factor for an electricity system</td></tr> <tr> <td>Version</td><td>02.2.0</td></tr> <tr> <td>MP compliance</td><td> <input checked="" type="checkbox"/> full compliance<br/> <input type="checkbox"/> findings have been raised<br/> <input type="checkbox"/> N/A (for MP) </td></tr> </table> | Title (of the tool) | Tool to calculate the emission factor for an electricity system | Version | 02.2.0 | MP compliance | <input checked="" type="checkbox"/> full compliance<br><input type="checkbox"/> findings have been raised<br><input type="checkbox"/> N/A (for MP) |
| Title (of the tool)          | Tool to calculate the emission factor for an electricity system                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
| Version                      | 02.2.0                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
| MP compliance                | <input checked="" type="checkbox"/> full compliance<br><input type="checkbox"/> findings have been raised<br><input type="checkbox"/> N/A (for MP)                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
|                              | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                | 2                                                                                                                                                                                                                                                                        | <table border="1"> <tr> <td>Title (of the tool)</td><td></td></tr> <tr> <td>Version</td><td></td></tr> <tr> <td>MP compliance</td><td> <input type="checkbox"/> full compliance<br/> <input type="checkbox"/> findings have been raised<br/> <input type="checkbox"/> N/A </td></tr> </table>                                                                                          | Title (of the tool) |                                                                 | Version |        | MP compliance | <input type="checkbox"/> full compliance<br><input type="checkbox"/> findings have been raised<br><input type="checkbox"/> N/A                     |
| Title (of the tool)          |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
| Version                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
| MP compliance                | <input type="checkbox"/> full compliance<br><input type="checkbox"/> findings have been raised<br><input type="checkbox"/> N/A                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
|                              | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                           | The breakdown of MP accordance of the applicable SB is as follows: <table border="1"> <tr> <td>Title (of the SB)</td><td></td></tr> <tr> <td>Version</td><td></td></tr> <tr> <td>MP compliance</td><td></td></tr> </table>                                               |                                                                                                                                                                                                                                                                                                                                                                                        | Title (of the SB)   |                                                                 | Version |        | MP compliance |                                                                                                                                                    |
| Title (of the SB)            |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
| Version                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
| MP compliance                |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
|                              | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                | In this context the following CARs, CLs, FARs have been raised:<br>CL 01                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
| <b>Conclusion</b>            | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                           | No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
|                              | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                | The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.                                                                   |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The applied methodologies are as per the registered/ latest PDD. The tool version to calculate the emission factor of the grid is applied as prescribed by the monitoring plan in the latest PDD. Both are consistent with the versions available at the UNFCCC website. |                                                                                                                                                                                                                                                                                                                                                                                        |                     |                                                                 |         |        |               |                                                                                                                                                    |

|  |                                                                                                                                                                                                                                                                                                                                              |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>The applied methodological tool to calculate the emission factor for an electricity system is version 2.2.0. This tool is still referenced in both applied methodologies and also the applicability conditions outlined in paragraphs 3 to 6 of the tool are met by the project activity.</p> <p>No standardised baseline is applied.</p> |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## E.6. Compliance of monitoring activities with the registered monitoring plan

### E.6.1. Data and parameters fixed ex ante or at renewal of crediting period

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <p>The verification team has checked the ex-ante parameters and data stated in Section D.1 of MR and compared with section B.6.2 of the registered PDD whether all parameters fixed ex-ante for the crediting period have been applied correctly.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> <li>• /MR/</li> <li>• /ER/</li> <li>• /PDD1/PDD2/</li> <li>• /PS/</li> <li>• /VVS/</li> <li>• /unfccc/</li> </ul> |                                                                                                                                                                                                        |
| <b>Findings</b>              | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The MR and the ER calculation have considered the parameters fixed ex-ante for the crediting period correctly, no deviations have been observed.                                                       |
|                              | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                               | The following deviations from the parameters fixed ex-ante or at renewal of crediting period have been identified in the course of this verification:<br>N/A                                           |
|                              | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                               | In this context the following CARs, CLs, FARs have been raised:<br>N/A                                                                                                                                 |
| <b>Conclusion</b>            | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.                                                            |
|                              | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                               | The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4. |
|                              | <p>The data and parameters listed in the section D.1 of MR were cross-checked with the applied methodology, subscribed tools, registered PDD, ER and are consistent. As per the registered monitoring plan, parameters used to calculate the Grid Emission Factor shall be monitored ex-post. Therefore, all parameters have been reported in section D.2 of the monitoring report</p>                                                                                                 |                                                                                                                                                                                                        |

### E.6.2. Data and parameters monitored

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                        |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <p>During the verification all monitoring parameters listed in Section D.2 of MR were compared with section B.7.1 of the registered and revised PDD have been verified with regard to the:</p> <ul style="list-style-type: none"> <li>(i) appropriateness of the applied measurement / determination method,</li> <li>(ii) the correctness of the values applied for ER calculation,</li> <li>(iii) the accuracy, and applied QA/QC measures.</li> </ul> <p>The results as well as the verification procedure are described parameter-wise in the project specific verification checklist (Appendix 5 table A-5).</p> |                                                                                                                                                                                                        |
| <b>Findings</b>              | CAR 06, CAR 07                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                        |
| <b>Conclusion</b>            | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.                                                            |
|                              | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4. |



|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>During the verification all relevant monitoring parameters (as listed in chapter B.7.1 of the revised PDD) have been verified with regard to the appropriateness of the applied measurement / determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures. The results as well as the verification procedure are described parameter-wise in the project specific verification checklist.</p> <p>After appropriate corrections were carried out by the project participant it can be confirmed that all monitoring parameters have been measured / determined without material misstatements and in line with all applicable standards and relevant requirements.</p> |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### E.6.3. Implementation of sampling plan

|                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                        |            |  |
|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--|
| <b>Means of verification</b>                                                                | <p>The verification team has been checked whether the PPs have applied a sampling approach to determine the monitored values.</p> <p>Further it has been checked whether the PPs have correctly applied the implemented sampling plan including</p> <ul style="list-style-type: none"> <li>(i) description of the implemented sampling design</li> <li>(ii) collected data</li> <li>(iii) analysis of collected data</li> <li>(iv) demonstration on whether the required confidence/precision has been met.</li> </ul> <p>The following sources of information have been used in this context.</p> <ul style="list-style-type: none"> <li>• /MR/</li> <li>• /ER/</li> <li>• /PDD1-PDD2/</li> </ul> |                                                                                                                                                                                                        |            |  |
| <b>Findings</b>                                                                             | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | The PPs have not applied sampling approaches for the parameters monitored.                                                                                                                             |            |  |
|                                                                                             | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The PPs have applied sampling approaches for the following parameters monitored.                                                                                                                       |            |  |
|                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1                                                                                                                                                                                                      | Parameter: |  |
|                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                        | Name:      |  |
|                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Description on how the sampling efforts and survey comply with the validated sampling plan:                                                                                                            |            |  |
|                                                                                             | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Parameter:                                                                                                                                                                                             |            |  |
|                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Name:                                                                                                                                                                                                  |            |  |
| Description on how the sampling efforts and survey comply with the validated sampling plan: |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                        |            |  |
| <input type="checkbox"/>                                                                    | In this context the following CARs, CLs, FARs have been raised:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                        |            |  |
|                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                        |            |  |
| <b>Conclusion</b>                                                                           | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.                                                            |            |  |
|                                                                                             | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4. |            |  |
|                                                                                             | No sampling was applied to determine the monitored parameters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                        |            |  |

### E.7. Compliance with the calibration frequency requirements for measuring instruments

|                              |                                                                                                                                                                                                                                                                                   |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <p>During the verification the relevant monitoring equipment has been checked whether the calibration requirements have been met; especially if the calibration frequency is in line with the requirements of the registered PDD and/or the applicable calibration standards.</p> |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <p>The calibration frequency of the electricity meters was cross-checked with the registered PDD against the calibration reports of the meters. The calibration will be conducted at least once every 12 months for the main and check meters or earlier if deemed necessary, in accordance with the registered monitoring plan. The calibration records covering the monitoring period were verified by the verification team and found delays in calibration.</p> <p>The results as well as the verification procedure are described instrument-wise in the project specific verification checklist Appendix 5.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> <li>• /MR/</li> <li>• /ER/</li> <li>• /PDD1//PDD2/</li> <li>• /IMS/</li> <li>• /EMS/</li> <li>• /IM01/</li> <li>• /PRC/</li> </ul> |
| <b>Findings</b>   | <input type="checkbox"/> Inconsistencies of the calibration information with calibration reports.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                   | <input type="checkbox"/> Based on the assessment and information as per appendix 6 delay(s) in calibration have been identified. The PP has applied the maximum permissible error of the instrument to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration.<br>From the related calibration certificates and emission reduction calculation the verification team confirms that the maximum permissible error has been applied in a conservative manner so that the adjusted measured values due to the delayed calibration result in fewer claimed emission reductions.<br>For details please refer to appendix 6                                                                                                                                                                                 |
|                   | <input checked="" type="checkbox"/> The metering diagram reflects the actual situation and is in line with the registered PDD and with the requirements of the applied methodology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                   | <input checked="" type="checkbox"/> In this context the following CARs, CLs, FARs have been raised:<br>CAR 06, CAR 07                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Conclusion</b> | <input type="checkbox"/> No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                   | <input checked="" type="checkbox"/> The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                   | <p>As per manufacturer specification, the electronic energy meters do not require any calibration for their entire lifetime<sup>/IMS//EMS/</sup>. PRC documents are being submitted together with request for issuance.</p> <p>There is no official standard for meter calibration with TANESCO<sup>/IM01/</sup>. The metering diagram is in accordance with the actual situation implemented at the project site.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## E.8. Assessment of data and calculation of emission reductions or net removals

### E.8.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <p>During the verification the calculation of baseline GHG emissions has been checked. In detail the following has been verified:</p> <ul style="list-style-type: none"> <li>• Transparency: It has been checked whether the calculation of baseline emissions is fully traceable and, where used, the Excel calculation provides all calculation formulae.</li> <li>• Parameter consistency: It has been checked whether all internal and external parameters and data used for the calculation are applied consistently in the monitoring report and the calculation spreadsheet.</li> </ul> |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- Correctness: It has been checked whether the applied formulae and methods for calculating baseline emissions are in accordance with the monitoring plan and the approved methodology.
- Completeness: It has been checked whether all calculations are complete and without omissions.

The equation applied for the determination of baseline GHG emissions is consistent with the approved revised PDD and applied methodologies:

$$BE_y = EG_{BL,y} \times EF_{CO_2,grid,y}$$

Where:

$BE_y$  : Baseline emissions in the monitoring period (tCO<sub>2</sub>).

$EG_{BL,y,1}$  : Quantity of net electricity generation supplied by the Mwenga Hydro Power plant to the processing factories in the monitoring period (MWh).

$EG_{BL,y,2}$  : Quantity of net electricity generation supplied by the Mwenga Hydro Power plant to the TANESCO national grid in the monitoring period (MWh).

$EF_{CO_2,grid,y,1}$  : Combined margin CO<sub>2</sub> emission factor for grid connected power generation (tCO<sub>2</sub>/MWh)

$EF_{CO_2,grid,y,2}$  : Combined margin CO<sub>2</sub> emission factor for grid connected power generation (tCO<sub>2</sub>/MWh)

$$EF_{CO_2,grid,y,1} = EF_{CO_2,grid,y,2} = EF_{CO_2,y}$$

Electricity was supplied to processing factories (MTC and Unilever), as well as the TANESCO grid during this MP.

$$BE = (EG_{BL,y,1} \times EF_{CO_2,grid,y,1}) + (EG_{BL,y,2} \times EF_{CO_2,grid,y,2})$$

Therefore,

$$\begin{aligned} BE_{Feb\ 2016 - Jan\ 2017} &= EG_{BL,y,1} \times EF_{CO_2,grid,y,1} \\ &= 36.62\ MWh \times 0.5203\ tCO_2e/MWh \\ &= \mathbf{19.05\ tCO_2e} \end{aligned}$$

$$\begin{aligned} BE_{Feb\ 2017 - Jan\ 2018} &= EG_{BL,y,1} \times EF_{CO_2,grid,y,1} \\ &= 1,910.14\ MWh \times 0.5168\ tCO_2e/MWh \\ &= \mathbf{987.16\ tCO_2e} \end{aligned}$$

$$\begin{aligned} BE_{Feb\ 2016 - Jan\ 2017} &= EG_{BL,y,2} \times EF_{CO_2,grid,y,2} \\ &= 18,098.49\ MWh \times 0.5203\ tCO_2e/MWh \\ &= \mathbf{9,416.64\ tCO_2e} \end{aligned}$$

$$\begin{aligned} BE_{Feb\ 2017 - Jan\ 2018} &= EG_{BL,y,2} \times EF_{CO_2,grid,y,2} \\ &= 16,692.55\ MWh \times 0.5168\ tCO_2e/MWh \\ &= \mathbf{8,626.71\ tCO_2e} \end{aligned}$$

Total Baseline Emissions = **19,049 tCO<sub>2</sub>e**

The following sources of information have been used in this context:

- /MR/
- /ER/

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <ul style="list-style-type: none"> <li>• /INV/</li> <li>• /PDD1//PDD2/</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Findings</b>   | <input type="checkbox"/> <p>The calculation of the baseline emissions was found to be fully compliant with the above stated principles.</p> <p>The calculations of baseline GHG emissions or baseline net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values, GWPs and other reference values have been correctly applied.</p> <p>No errors, miscalculations, omissions, misstatements or incomplete information has been identified.</p>                                                                              |
|                   | <input checked="" type="checkbox"/> <p>The verification team has identified mistakes in the baseline emissions calculation or the underlying calculation approaches.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                   | <input checked="" type="checkbox"/> <p>In this context the following CARs, CLs, FARs have been raised:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                   | <p>CAR 04, CAR 06, CAR 07</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Conclusion</b> | <input type="checkbox"/> <p>No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                   | <input checked="" type="checkbox"/> <p>The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                   | <p>The calculation of baseline emissions is correct and follows the methodology and the monitoring plan in the revised PDD.</p> <p>The information and data provided in the monitoring report has been cross-checked with other sources such as electricity protocols and invoices on the values applied for the baseline emissions calculation.</p> <p>The calculations of baseline GHG emissions have been carried out in accordance with the equations and methods described in the registered monitoring plan and applied methodology.</p> <p>The emission factor applied is the correct value valid for this monitoring period.</p> <p>Any assumptions used in emission or removal calculations have been justified. Appropriate emission factor and other reference values have been correctly applied.</p> |

### E.8.2. Calculation of project GHG emissions or actual net anthropogenic GHG removals by sinks

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <p>During the verification the calculation of project GHG emissions has been checked. In detail the following has been verified:</p> <ul style="list-style-type: none"> <li>• Transparency: It has been checked whether the calculation of project emissions is fully traceable and, where used, the Excel calculation provides all calculation formulae.</li> <li>• Parameter consistency: It has been checked whether all internal and external parameters and data used for the calculation are applied consistently in the monitoring report and the calculation spreadsheet.</li> <li>• Correctness: It has been checked whether the applied formulae and methods for calculating project emissions are in accordance with the monitoring plan and the approved methodology.</li> <li>• Completeness: It has been checked whether all calculations are complete and without omissions.</li> </ul> <p>According to the approved revised and registered PDD, the project activity is a small scale hydro project and does not result in a new reservoir. No project emissions occur on account of the decomposition of vegetative biomass.</p> <p>PE<sub>y</sub> = 0</p> <p>The following sources of information have been used in this context:</p> |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <ul style="list-style-type: none"> <li>• /MR/</li> <li>• /PDD1//PDD2/</li> <li>• /ER/</li> <li>• /PRC/</li> <li>• /VER/</li> <li>• /AMS/</li> <li>• /onsite/</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Findings</b>   | <input type="checkbox"/> The calculation of the project emissions was found to be fully compliant with the above stated principles.<br>The calculations of project GHG emissions or actual net GHG removals have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in emission or removal calculations have been justified. Appropriate emission factors, IPCC default values, GWPs and other reference values have been correctly applied.<br>No errors, miscalculations, omissions, misstatements or incomplete information have been identified. |
|                   | <input type="checkbox"/> The verification team has identified mistakes in the project emissions calculation or the underlying calculation approaches.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                   | <input type="checkbox"/> In this context the following CARs, CLs, FARs have been raised:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Conclusion</b> | <input checked="" type="checkbox"/> No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                   | <input type="checkbox"/> The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                   | Emission reductions are calculated excluding electricity imports from the grid by the hydro power plant. No project emissions are considered as per the applied methodology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

### E.8.3. Calculation of leakage GHG emissions

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | During the verification it has been checked whether leakage emissions have to be considered and, in cases where leakage emissions have to be calculated, the respective calculation of leakage GHG emissions has been checked.<br>According to the registered PDD the technology used in this project is neither transferred to nor transferred from another activity. Therefore, leakage is considered to be zero ( $LE_y = 0$ )<br>The following sources of information have been used in this context: <ul style="list-style-type: none"> <li>• /MR/</li> <li>• /PDD1/PDD2/</li> <li>• /AMS/</li> </ul>                                                                                                                |
| <b>Findings</b>              | <input checked="" type="checkbox"/> No leakage emissions were to be considered ( $LE = 0$ ).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                              | <input type="checkbox"/> The calculation of the leakage emissions was found to be fully compliant with the above stated principles (see 8.1 and 8.2).<br>The calculations of leakage GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline. Any assumptions used in leakage emissions calculations have been justified. Where applicable, appropriate emission factors, IPCC default values, GWPs and other reference values have been correctly applied.<br>No errors, miscalculations, omissions, misstatements or incomplete information have been identified. |

|                   |                                                                                                                                                                            |                                                                                                                                                                                                        |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <input type="checkbox"/>                                                                                                                                                   | The verification team has identified mistakes in the project emissions calculation or the underlying calculation approaches.                                                                           |
|                   | <input type="checkbox"/>                                                                                                                                                   | In this context the following CARs, CLs, FARs have been raised:                                                                                                                                        |
| <b>Conclusion</b> | <input checked="" type="checkbox"/>                                                                                                                                        | No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.                                                            |
|                   | <input type="checkbox"/>                                                                                                                                                   | The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4. |
|                   | No leakage has to be considered according to the registered PDD since the technology used in this project is neither transferred to nor transferred from another activity. |                                                                                                                                                                                                        |

#### E.8.4. Summary calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

|                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b>                                                                                                                                                           | <p>Section E.4 of MR demonstrate the summary of GHG emission reductions for the monitoring period and calculated according to the applied methodology AMS-I.F version 02.0, and AMS-I.D version 17.0 as follows:</p> $ER_y = BE_y - PE_y - LE_y$ $= 19,049 \text{ tCO}_2\text{e} - 0 - 0$ $= \mathbf{19,049 \text{ tCO}_2\text{e}}$ <p><input checked="" type="checkbox"/> The MR includes in section E.4 a summary table of the emission reductions calculation.</p> <p><input checked="" type="checkbox"/> The summary table specified the total baseline, project and leakage emissions as well as the total emission reductions separately.</p> <p><input type="checkbox"/> The values as specified in the ER summary table are correct; no issues have been identified during the verification which requires changes in the ER calculation.</p> <p><input checked="" type="checkbox"/> During the verification issues with impact on the ER calculation have been identified.</p> |                                                                                                                                                                                                        |
| <b>Findings</b>                                                                                                                                                                        | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Section E.4 of the MR includes in a summary table of the emission reductions calculation.                                                                                                              |
|                                                                                                                                                                                        | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | The summary table specified the total baseline, project and leakage emissions as well as the total emission reductions separately.                                                                     |
|                                                                                                                                                                                        | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | The values as specified in the ER summary table are correct; no issues have been identified during the verification which requires changes in the ER calculation.                                      |
|                                                                                                                                                                                        | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | During the verification issues with impact on the ER calculation have been identified.                                                                                                                 |
|                                                                                                                                                                                        | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | In this context the following CARs, CLs, FARs have been raised:<br>CL 01, CAR 04, CAR 06, CAR 07                                                                                                       |
| <b>Conclusion</b>                                                                                                                                                                      | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.                                                            |
|                                                                                                                                                                                        | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4. |
| The summary table in the MR has been filled correctly and after closure of findings, the values are deemed to be correct and in line with the related emissions reduction spreadsheet. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                        |

#### E.8.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

|                              |                                                                                                                                                    |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | Section E.5 of the MR includes a comparison of the calculated actual emission reductions with the ex-ante calculated values in the registered PDD. |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                        |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <p>For this monitoring period from 01/02/2016 to 31/01/2018 (both days included) the project achieved <b>19,049 tCO<sub>2</sub>e</b> of GHG emission reductions.</p> <p>The estimated ex-ante GHG emission reductions in the approved revised and registered PDDs for this monitoring period are <b>22,739 tCO<sub>2</sub>e</b>.</p> <p>Therefore, the actual emission reduction is <b>16.23%</b> lower than the estimated ex-ante emission reductions in the approved revised and registered PDDs.</p> <p>It has further checked which of the below listed cases is applicable for the calculated ER of the current monitoring period.</p> |                                                                                                                                                                                                        |
| <b>Findings</b>   | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Case 1: The ex-ante estimated value was found to be proportionally higher than the ex-post determined value. No further action is deemed required.                                                     |
|                   | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Case 2: The ex-ante estimated value fits very good to the actually monitored value. No further justification is deemed required.                                                                       |
|                   | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Case 3: The ex-ante estimated value was found to be proportionally lower than the ex-post determined value.                                                                                            |
|                   | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | In this context the following CARs, CLs, FARs have been raised:                                                                                                                                        |
| <b>Conclusion</b> | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.                                                            |
|                   | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4. |
|                   | The ex-ante estimated value was found to be proportionally higher than the ex-post determined value. No further justification is deemed required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                        |

**E.8.6. Remarks on difference from estimated value in registered PDD**

|                              |                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                        |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <p>On the basis of the above comparison of actual values of the monitoring period with the estimations in the registered PDD the verification team has checked whether (in case 3) an appropriate explanation is included in the MR.</p> <p>For this monitoring period, the actual emission reductions were found lower than the estimated emission reductions in the registered PDD.</p> |                                                                                                                                                                                                        |
| <b>Findings</b>              | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                       | No further justification or explanation is deemed required as actual emissions of this MP do not exceed significantly the ex-ante calculated emission reductions (applicable for case 1 and 2).        |
|                              | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                  | For case 3: The PP has provided a related justification in the MR. The reasons for the increase are as follows:                                                                                        |
|                              | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                  | In this context the following CARs, CLs, FARs have been raised:                                                                                                                                        |
| <b>Conclusion</b>            | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                       | No CARs / CLs / FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.                                                            |
|                              | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                  | The raised CARs / CLs / FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4. |
|                              | The ex-post ERs are lower than ex-ante estimation, hence, no justification is necessary.                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                        |

**E.8.7. Actual GHG emission reductions or net anthropogenic GHG removals by sinks during the first commitment period and the period from 1 January 2013 onwards**

|                              |                                                                                                       |                                                                                                                                                                                         |
|------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | The verification team has checked chapter E.4 of the MR and the emission reduction calculation sheet. |                                                                                                                                                                                         |
| <b>Findings</b>              | <input checked="" type="checkbox"/>                                                                   | The MR in section E.4 includes a summary table of the ER breakdown <ul style="list-style-type: none"> <li>a) ER before 01/01/2013 and</li> <li>b) ER from 01/01/2013 onwards</li> </ul> |
|                              | <input checked="" type="checkbox"/>                                                                   | The breakdown of the ERs before 01/01/2013 (during the first commitment period) and from 01/01/2013 onwards is as follows:                                                              |

|                                                   | <input type="checkbox"/>                                                                                                                                                                            | The ER have completely been generated before 01/01/2013 (during the first commitment period)                                                                                                                                                                                                      |               |                      |                    |     |                                                   |          |               |               |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------|--------------------|-----|---------------------------------------------------|----------|---------------|---------------|
|                                                   | <input checked="" type="checkbox"/>                                                                                                                                                                 | The ERs have completely been generated from 01/01/2013 onwards,                                                                                                                                                                                                                                   |               |                      |                    |     |                                                   |          |               |               |
|                                                   | <input type="checkbox"/>                                                                                                                                                                            | The ERs have partly been generated before 01/01/2013 (during the first commitment period) and partly from 01/01/2013 onwards.                                                                                                                                                                     |               |                      |                    |     |                                                   |          |               |               |
|                                                   | <input checked="" type="checkbox"/>                                                                                                                                                                 | The breakdown of the ERs is correct, considering the applicable guidance.                                                                                                                                                                                                                         |               |                      |                    |     |                                                   |          |               |               |
|                                                   |                                                                                                                                                                                                     | <table border="1"> <thead> <tr> <th></th> <th>before<br/>01/01/2013</th> <th>from<br/>01/01/2013</th> <th>Sum</th> </tr> </thead> <tbody> <tr> <td><b>Emission reductions<br/>[tCO<sub>2e</sub>]</b></td> <td><b>0</b></td> <td><b>19,049</b></td> <td><b>19,049</b></td> </tr> </tbody> </table> |               | before<br>01/01/2013 | from<br>01/01/2013 | Sum | <b>Emission reductions<br/>[tCO<sub>2e</sub>]</b> | <b>0</b> | <b>19,049</b> | <b>19,049</b> |
|                                                   | before<br>01/01/2013                                                                                                                                                                                | from<br>01/01/2013                                                                                                                                                                                                                                                                                | Sum           |                      |                    |     |                                                   |          |               |               |
| <b>Emission reductions<br/>[tCO<sub>2e</sub>]</b> | <b>0</b>                                                                                                                                                                                            | <b>19,049</b>                                                                                                                                                                                                                                                                                     | <b>19,049</b> |                      |                    |     |                                                   |          |               |               |
|                                                   | <input type="checkbox"/>                                                                                                                                                                            | In this context the following CARs, CLs, FARs have been raised:                                                                                                                                                                                                                                   |               |                      |                    |     |                                                   |          |               |               |
| <b>Conclusion</b>                                 | <input checked="" type="checkbox"/>                                                                                                                                                                 | No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.                                                                                                                                                           |               |                      |                    |     |                                                   |          |               |               |
|                                                   | <input type="checkbox"/>                                                                                                                                                                            | The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.                                                                                                |               |                      |                    |     |                                                   |          |               |               |
|                                                   | The data provided in the MR is correct as well as the related breakdown. The calculations of GHG emission reductions or net anthropogenic GHG removals are in accordance with the project standard. |                                                                                                                                                                                                                                                                                                   |               |                      |                    |     |                                                   |          |               |               |

#### E.9. Assessment of reported sustainable development co-benefits

|                              |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <input checked="" type="checkbox"/> | N/A – as the PP has not monitored the sustainable development co-benefits of the registered CDM project activity or not requested the DOE to verify them.                                                                                                                                                                                                                                                                                                                                  |
|                              | <input type="checkbox"/>            | <p>The project participants have monitored the sustainable development co-benefits of the registered CDM project activity, and requested the DOE to verify them.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> <li>• /MR/</li> <li>• /PDD1//PDD2/</li> <li>• /unfccc/</li> </ul>                                                                                                                                      |
| <b>Findings</b>              | <input checked="" type="checkbox"/> | N/A – as the PP has not monitored the sustainable development co-benefits of the registered CDM project activity or not requested the DOE to verify them.                                                                                                                                                                                                                                                                                                                                  |
|                              | <input type="checkbox"/>            | <p>Therefore, the DOE has assessed and confirms that:</p> <p>(a) The monitoring has been carried out in accordance with the document for monitoring sustainable development co-benefits, if such document was developed and published on the UNFCCC CDM website in accordance with the “CDM project standard for project activities”;</p> <p>(b) The reported monitoring results correspond to the sustainable development co-benefits of the project activity as observed by the DOE.</p> |
|                              | <input type="checkbox"/>            | In this context the following CARs, CLs, FARs have been raised:                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Conclusion</b>            | <input type="checkbox"/>            | No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.                                                                                                                                                                                                                                                                                                                                                    |
|                              | <input type="checkbox"/>            | The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.                                                                                                                                                                                                                                                                                         |
|                              | <input checked="" type="checkbox"/> | N/A – as the PP has not monitored the sustainable development co-benefits of the registered CDM project activity or not requested the DOE to verify them.                                                                                                                                                                                                                                                                                                                                  |



**E.10. Global stakeholder consultation**

| <b>Means of verification</b> | <p>In accordance with the PCP the DOE has submitted the initial version of the monitoring report provided by the PP for this monitoring period to be published on the UNFCCC webpage.</p> <p>The monitoring report has been published for the recommended period.</p> <p>The following sources of information have been used in this context:</p> <ul style="list-style-type: none"> <li>• /MR/</li> <li>• /unfccc/</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                  |      |                           |                    |                  |   |  |  |  |   |  |  |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------|---------------------------|--------------------|------------------|---|--|--|--|---|--|--|
| <b>Findings</b>              | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                            | No comments have been received on the published monitoring report for this monitoring period.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |      |                           |                    |                  |   |  |  |  |   |  |  |
|                              | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                       | Comments have been received and the DOE has concluded that comments are related to issues outside the CDM rules and requirements. Please refer to the list provided under Conclusion of this Section below for related information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                  |      |                           |                    |                  |   |  |  |  |   |  |  |
|                              | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                       | <p>Comments have been received.</p> <p>The DOE has</p> <ul style="list-style-type: none"> <li>- requested further information from the submitters of the comments</li> <li>- informed the project participants of the comments received, and requested their feedback within a specified timeframe,</li> <li>- considered the input received and has assessed whether such comments are relevant to the CDM project activity,</li> <li>- acknowledged receipt of all submitted comments on the MR of the proposed CDM project activity,</li> <li>- assessed whether the comments are related to the CDM rules and requirements (if so related findings have been raised as per below),</li> <li>- used all possible means to determine the authenticity of the name and contact details of the individual or organization on whose behalf the comments have been submitted,</li> <li>- contacted the secretariat to make them publicly available (if only addressed to the DOE),</li> <li>- determined whether authentic and relevant comments in the global stakeholder consultation were taken into due account in the PDD of the proposed CDM project activity.</li> </ul> |                  |      |                           |                    |                  |   |  |  |  |   |  |  |
|                              | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                       | In this context the following CARs, CLs, FARs have been raised, i.e. as the DOE concludes that the comments are related to the CDM rules and requirements:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                  |      |                           |                    |                  |   |  |  |  |   |  |  |
| <b>Conclusion</b>            | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                            | No CARs/CLs/FARs have been raised in this context. No correction was required. The project is in line with the respective requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                  |      |                           |                    |                  |   |  |  |  |   |  |  |
|                              | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                       | The raised CARs/CLs/FARs have been addressed appropriately. The PP has carried out the requested corrections. All respective findings could be closed out. For details please refer to Appendix 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                  |      |                           |                    |                  |   |  |  |  |   |  |  |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>As the DOE has concluded that comments are related to issues outside the CDM rules and requirements the comments and information gathered are listed as follows:</p> <table border="1" data-bbox="464 1686 1457 1812"> <thead> <tr> <th data-bbox="464 1686 564 1749">Nbr.</th><th data-bbox="564 1686 908 1749">Original comment received</th><th data-bbox="908 1686 1211 1749">Feedback by the PP</th><th data-bbox="1211 1686 1457 1749">Statement by DOE</th></tr> </thead> <tbody> <tr> <td data-bbox="464 1749 564 1783">1</td><td data-bbox="564 1749 908 1783"></td><td data-bbox="908 1749 1211 1783"></td><td data-bbox="1211 1749 1457 1783"></td></tr> <tr> <td data-bbox="464 1783 564 1812">2</td><td data-bbox="564 1783 908 1812"></td><td data-bbox="908 1783 1211 1812"></td><td data-bbox="1211 1783 1457 1812"></td></tr> </tbody> </table>                                                                                                                                                                                                                                                                                                           |                  | Nbr. | Original comment received | Feedback by the PP | Statement by DOE | 1 |  |  |  | 2 |  |  |
| Nbr.                         | Original comment received                                                                                                                                                                                                                                                                                                                                                                                                      | Feedback by the PP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Statement by DOE |      |                           |                    |                  |   |  |  |  |   |  |  |
| 1                            |                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                  |      |                           |                    |                  |   |  |  |  |   |  |  |
| 2                            |                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                  |      |                           |                    |                  |   |  |  |  |   |  |  |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                  |      |                           |                    |                  |   |  |  |  |   |  |  |

**SECTION F. Internal quality control**

Before the submission of the final verification report a technical review of the whole verification procedure was carried out. The technical reviewers are competent GHG auditors being appointed for the scope this project falls under. The technical reviewers are not considered to be part of the verification team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the verification opinion and the topic specific assessments as prepared by the verification team leader may have been confirmed or revised. Furthermore, reporting improvements might have been achieved.

After the successful technical review, an overall (esp. procedural) assessment of the complete verification has been carried out by a senior assessor located in the accredited premises of TÜV NORD CERT GmbH.

After this step the submission for requesting for issuance is conducted.

**SECTION G. Verification opinion**

Mwenga Hydro Limited has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 3<sup>rd</sup> periodic verification of the project: **“Mwenga Hydro Power Project”**, with regard to the relevant requirements for CDM project activities. The project reduces GHG emissions due to using hydropower to generate renewable energy. This verification covers the period from 01/02/2016 to 31/01/2018 (including both days).

As a result of this verification, the verifier confirms that:

- all operations of the project are implemented and installed as planned and described in the validated project design document.
- the monitoring plan is in accordance with the applied approved CDM methodologies, i.e., AMS-I.D ver. 17.0, and AMS-I.F, version 02.0.
- the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately.
- the monitoring system is in place and functional. The project has generated GHG emission reductions.

As the result of the 3<sup>rd</sup> periodic verification, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as follows:

Emission reductions: **19,049 tCO<sub>2</sub>e**

**SECTION H. Certification statement**

As a duly accredited DOE, TÜV NORD CERT confirms that the project

**“Mwenga Hydro Power Project”**

registered under

UNFCCC-No.: **9550**

has achieved emission reductions in accordance with all applicable requirements for registered CDM project activities during the current monitoring period

MP-No.: 3.0

from: 01/02/2016

to: 31/01/2018

(including both days) as follows:

Emission reductions: **19,049 tCO<sub>2</sub>e**

Kigali, 13/05/2019




Lubanga, David  
TÜV NORD JI/CDM CP  
Verification Team Leader

## Appendix 1. Abbreviations

| Abbreviations     | Full texts                                            |
|-------------------|-------------------------------------------------------|
| CA                | Corrective Action / Clarification Action              |
| CAR               | Corrective Action Request                             |
| CDM               | Clean Development Mechanism                           |
| CER               | Certified Emission Reduction                          |
| CO <sub>2</sub>   | Carbon dioxide                                        |
| CO <sub>2eq</sub> | Carbon dioxide equivalent                             |
| CL                | Clarification Request                                 |
| DOE               | Designated Operating Entity                           |
| ER                | Emission Reduction                                    |
| EVN               | Electricity Vietnam                                   |
| FAR               | Forward Action Request                                |
| GEF               | Grid Emission Factor                                  |
| GHG               | Greenhouse gas(es)                                    |
| IM                | Interview Memo                                        |
| IPCC              | Intergovernmental Panel on Climate Change             |
| MHL               | Mwenga Hydro Limited                                  |
| MOIT              | Ministry of Industry and Trade                        |
| MP                | Monitoring Plan                                       |
| MPE               | Maximum Permissible Error                             |
| MR                | Monitoring Report                                     |
| PA                | Project Activity                                      |
| PDD               | Project Design Document                               |
| PP                | Project Participant                                   |
| PRC               | Post Registration Changes                             |
| QA/QC             | Quality Assurance / Quality Control                   |
| TANESCO           | Tanzania Electric Supply Company Limited              |
| UTTL              | Unilever Tea Tanzania Ltd.                            |
| UNFCCC            | United Nations Framework Convention on Climate Change |
| VVS               | Validation and Verification Standard                  |

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



**Statement of Competence**  
Agreement and authorization according to the procedures of the TÜV NORD ACCM Certification Program

**Ms. Xue Jiao Fancy Zhao**


| SCHEME            | STATUS                                     | VALID UNTIL |
|-------------------|--------------------------------------------|-------------|
| CDM               | Senior Assessor (Validation, Verification) | 2015-11-01  |
| VCS / ISO 14064-2 | Senior assessor                            | 2015-11-01  |

Authorization status for technical areas within sectoral scope:

| CODE | TECHNICAL AREA                |
|------|-------------------------------|
| 1.2  | Renewables                    |
| 3.1  | Energy demand                 |
| 13.1 | Mining and mineral processing |
| 13.2 | Waste and wastewater          |

235 - Rev. 8, Date: 2016-08-09

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**Statement of Competence**  
Agreement and authorization according to the procedures of the TÜV NORD ACCM Certification Program

**Mr. David Lubanga**


| SCHEME            | STATUS                                     | VALID UNTIL |
|-------------------|--------------------------------------------|-------------|
| CDM               | Senior Assessor (Validation, Verification) | 2021-10-20  |
| VCS / ISO 14064-2 | Senior Assessor / Technical Reviewer       | 2021-10-20  |

Authorization status for technical areas within sectoral scope:

| CODE | TECHNICAL AREA |
|------|----------------|
| 1.2  | Renewables     |
| 3.1  | Energy demand  |
| 13.2 | Mining         |

251 - Rev. 7, Date: 2016-10-19

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**Statement of Competence**  
Agreement and authorization according to the procedures of the TÜV NORD ACCM Certification Program

**Mr. Stefan Winter**

| SCHEME | STATUS                                     | VALID UNTIL |
|--------|--------------------------------------------|-------------|
| CDM    | Senior Assessor (Validation, Verification) | 2020-07-27  |
| VCS    | Senior Assessor (Validation, Verification) | 2020-07-27  |

Authorization status for technical areas within sectoral scope:

| CODE | TECHNICAL AREA                         |
|------|----------------------------------------|
| 1.1  | Thermal energy generation              |
| 1.2  | Renewables                             |
| 2.1  | Energy distribution                    |
| 3.1  | Energy demand                          |
| 4.1  | Cement and lime production             |
| 4.2  | Paper                                  |
| 9.2  | Coprocessed, nitro and adipic acid     |
| 9.1  | Aluminium and magnesium production     |
| 9.2  | Iron, steel and Ferro-alloy production |
| 13.1 | Solid waste and wastewater             |
| 13.2 | Mining                                 |

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## Appendix 3. Documents reviewed or referenced

| No. | Author | Reference     | Title                                                                                                                                                                                                                          | References to the document                                                                                                              | Provider |
|-----|--------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------|
| 1.  | UNFCCC | <b>/AMS/</b>  | <ul style="list-style-type: none"> <li>AMS-I.F, version 02.0: "Renewable Electricity Generation for Captive use and Mini Grid",</li> <li>AMS-I.D. version. 17.0: "Grid connected renewable electricity generation".</li> </ul> | <a href="http://cdm.unfccc.int/methodologies/PAmethodologies/approved">http://cdm.unfccc.int/methodologies/PAmethodologies/approved</a> | Other    |
| 2.  | DOE    | <b>/CPM/</b>  | TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)                                                                                                                                                                    |                                                                                                                                         | Other    |
| 3.  | IPCC   | <b>/IPCC/</b> | <ol style="list-style-type: none"> <li>1996 IPCC Guidelines for National Greenhouse Gas Inventories: work book</li> <li>2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book</li> </ol>                     | <a href="http://www.ipcc-nggip.iges.or.jp">www.ipcc-nggip.iges.or.jp</a>                                                                | Other    |
| 4.  | UNFCCC | <b>/KPI/</b>  | Kyoto Protocol (1997)                                                                                                                                                                                                          | <a href="http://unfccc.int/kyoto_protocol/items/2830.php">http://unfccc.int/kyoto_protocol/items/2830.php</a>                           | Other    |
| 5.  | UNFCCC | <b>/MA/</b>   | Decision 3/CMP. 1 (Marrakesh – Accords)                                                                                                                                                                                        | <a href="http://cdm.unfccc.int/Reference/CO2PMOP/index.html">http://cdm.unfccc.int/Reference/CO2PMOP/index.html</a>                     | Other    |
| 6.  | UNFCCC | <b>/MRT/</b>  | Monitoring Report Form (CDM-MR-FORM), Version 06.0                                                                                                                                                                             | <a href="https://cdm.unfccc.int/Reference/P">https://cdm.unfccc.int/Reference/P</a>                                                     | Other    |

| No. | Author | Reference     | Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | References to the document                                                                                                                                                                                              | Provider |
|-----|--------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|     |        |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <a href="#">DDs_Forms/index.html</a>                                                                                                                                                                                    |          |
| 7.  | UNFCCC | <b>/PDD1/</b> | Registered Project Design Document for CDM project: "Mwenga Hydro Power Project" version 03.0, dated 28/01/2013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <a href="http://cdm.unfccc.int/Projects/DB/KBS_Cert1317458082.1/view">http://cdm.unfccc.int/Projects/DB/KBS_Cert1317458082.1/view</a>                                                                                   | Other    |
| 8.  | UNFCCC | <b>/PDD2/</b> | <p>Latest approved Project Design Document for CDM project: "Mwenga Hydro Power Project" version 08.0 dated 13/04/2015</p> <p>Revised Project Design Document for CDM project: "Mwenga Hydro Power Project" version 09.0 dated 16/05/2018</p> <p>Revised Project Design Document for CDM project: "Mwenga Hydro Power Project" version 10.0 dated 28/06/2018</p> <p>Revised Project Design Document for CDM project: "Mwenga Hydro Power Project" version 11.0 dated 24/09/2018</p> <p>Revised Project Design Document for CDM project: "Mwenga Hydro Power Project" version 12.0 dated 16/10/2018</p> <p>Revised Project Design Document for CDM project: "Mwenga Hydro Power Project" version 13.0 dated 16/10/2018</p> <p>Revised Project Design Document for CDM project: "Mwenga Hydro Power Project" version 14.0 dated 07/05/2019</p> | <a href="http://cdm.unfccc.int/Projects/DB/KBS_Cert1317458082.1/view">http://cdm.unfccc.int/Projects/DB/KBS_Cert1317458082.1/view</a>                                                                                   | Other    |
| 9.  | UNFCCC | <b>/VER/</b>  | Verification and Certification Report: "Mwenga Hydro Power Project" version 03.0 dated 11/05/2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <a href="http://cdm.unfccc.int/Projects/DB/KBS_Cert1317458082.1/view">http://cdm.unfccc.int/Projects/DB/KBS_Cert1317458082.1/view</a>                                                                                   | Other    |
| 10. | UNFCCC | <b>/PS/</b>   | CDM Project Standard for project activity (Version 02.0)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <a href="http://cdm.unfccc.int/Reference/Standards/index.html">http://cdm.unfccc.int/Reference/Standards/index.html</a>                                                                                                 | Other    |
| 11. | UNFCCC | <b>/VAL/</b>  | Validation Report for CDM project "Mwenga Hydro Power Project" version 3.0, dated 29/01/2013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="http://cdm.unfccc.int/Projects/DB/KBS_Cert1317458082.1/view">http://cdm.unfccc.int/Projects/DB/KBS_Cert1317458082.1/view</a>                                                                                   | Other    |
| 12. | UNFCCC | <b>/VVS/</b>  | CDM Validation and Verification Standard for project activity (Version 02.0)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="http://cdm.unfccc.int/Reference/Standards/index.html">http://cdm.unfccc.int/Reference/Standards/index.html</a>                                                                                                 | Other    |
| 13. | UNFCCC | <b>/TL/</b>   | Tool to calculate the emission factor for an electricity system version 02.2.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <a href="http://cdm.unfccc.int/Reference/tools/index.html">http://cdm.unfccc.int/Reference/tools/index.html</a>                                                                                                         | Other    |
| 14. | UNFCCC | <b>/GT/</b>   | Glossary "CDM terms" (version 09.1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <a href="https://cdm.unfccc.int/filestorage/extra/t/extrafile-20150226124447549-glos_CDM.pdf/glos_CDM.pdf?t=U">https://cdm.unfccc.int/filestorage/extra/t/extrafile-20150226124447549-glos_CDM.pdf/glos_CDM.pdf?t=U</a> | Other    |

| No.                 | Author            | Reference | Title                                                                                                                                                                                                                                                                                                                                                      | References to the document                                                                  | Provider           |
|---------------------|-------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------|
|                     |                   |           |                                                                                                                                                                                                                                                                                                                                                            | <a href="#">mZ8bnFjODI3fD</a><br><a href="#">CW9A3vJwR03k</a><br><a href="#">QQh4sbLiYu</a> |                    |
| 15.                 | Monitoring Report |           |                                                                                                                                                                                                                                                                                                                                                            |                                                                                             |                    |
|                     | PP                | /MR/      | Monitoring Report version 1.0 dated 23/03/2018<br>Monitoring Report version 2.0 dated 23/06/2018<br>Monitoring Report version 3.0 dated 01/10/2018<br>Monitoring Report version 4.0 dated 16/10/2018<br>Monitoring Report version 5.0 dated 29/11/2018<br>Monitoring Report version 6.0 dated 13/02/2019<br>Monitoring Report version 7.0 dated 07/05/2019 |                                                                                             | PP                 |
| 16.                 | ER spreadsheet    |           |                                                                                                                                                                                                                                                                                                                                                            |                                                                                             |                    |
|                     | PP                | /ER/      | <ul style="list-style-type: none"><li>UN9550_ER Spreadsheet_V01_15032018</li><li>UN9550_ER Spreadsheet_V02_28062018</li><li>Data For MTC,Unilever and Tanesco</li><li>Tanzania_GEF2016_21062018</li><li>Tanzania_GEF2017_21062018</li></ul>                                                                                                                |                                                                                             | PP                 |
| Calibration Reports |                   |           |                                                                                                                                                                                                                                                                                                                                                            |                                                                                             |                    |
| Other Documents     |                   |           |                                                                                                                                                                                                                                                                                                                                                            |                                                                                             |                    |
| 17.                 | MHL/MTC           | /PPA1/    | PPA between Mwenga Hydro Limited and Mufindi Tea & Coffee Company Ltd, dated 23/04/2014                                                                                                                                                                                                                                                                    |                                                                                             | MHL                |
| 18.                 | MHL/UTL           | /PPA2/    | PPA between Mwenga Hydro Limited and Unilever Tea Tanzania Limited, dated 22/05/2015                                                                                                                                                                                                                                                                       |                                                                                             | MHL                |
| 19.                 | MHL/UTL           | /PPA3/    | PPA between Mwenga Hydro Limited and TANESCO, dated 19/01/2010                                                                                                                                                                                                                                                                                             |                                                                                             | MHL                |
| 20.                 | MHL               | /CO/      | First TANESCO Tax invoice showing date of first electricity supply as 21/09/2012                                                                                                                                                                                                                                                                           |                                                                                             | MHL                |
| 21.                 | MHL               | /UNI/     | First Tax Invoice for Unilever showing first date of electricity supply as 01/01/2017                                                                                                                                                                                                                                                                      |                                                                                             | MHL                |
| 22                  | MHL               | /MTCI/    | First Tax Invoice for MTC showing first month of electricity supply as May 2016                                                                                                                                                                                                                                                                            |                                                                                             | MHL                |
| 23                  | TANESCO           | /INTC/    | Interconnection Certificate, dated 17/09/2012 from TANESCO                                                                                                                                                                                                                                                                                                 |                                                                                             | MHL                |
| 24                  | ISRAEME CO        | /IMS/     | ISKRA Meter Description and Technical Specification (MT830/MT831).<br>“The meter is designed and manufactured in such a way that it does not need maintenance during the entire                                                                                                                                                                            |                                                                                             | ISKRA website & PP |

| No.                       | Author   | Reference       | Title                                                                                                                                                                                                                                                                    | References to the document                                                                                                                                                                                                                                                      | Provider |
|---------------------------|----------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|                           |          |                 | <i>meter lifetime. Measuring stability assures that no recalibration is required.” (page 40)</i>                                                                                                                                                                         |                                                                                                                                                                                                                                                                                 |          |
| 25                        | Wei Seng | <b>/EMS/</b>    | Email response to PP from EDMl-mK10E manufacturer, dated 21/09/2018 indicating that the meters do not require calibration after installation                                                                                                                             |                                                                                                                                                                                                                                                                                 | PP       |
| 26                        | TNC      | <b>/PRC/</b>    | Post Registration Assessment Opinion for CDM project “Mwenga Hydro Power Project” version 04.0 dated 20/05/2015<br>Post Registration Assessment Opinion for CDM project submitted with this issuance request: “Mwenga Hydro Power Project” version 03.0 dated 13/05/2019 |                                                                                                                                                                                                                                                                                 | Other    |
| <b>Generation records</b> |          |                 |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                 |          |
| 27.                       | MHL      | <b>/INV/</b>    | Submission of Tax Invoices - February 2014 to January 2018 Sales                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                 | MHL      |
| 28.                       | MHL      | <b>/LOG/</b>    | Random sample hard copy generation logs obtained onsite                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                 | MHL      |
| 29                        | UTTL     | <b>/CER/</b>    | Letter from Unilever Tea Tanzania Limited to Mwenga Hydro Power indicating that UTTL will not be claiming carbon credits from the project activity, dated 27/11/2018                                                                                                     |                                                                                                                                                                                                                                                                                 | UTTL     |
| <b>Website Used</b>       |          |                 |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                 |          |
| 1.                        | SEA      | <b>/sea/</b>    | Swedish Energy Agency                                                                                                                                                                                                                                                    | <a href="http://www.energi-myndigheten.se/en/">http://www.energi-myndigheten.se/en/</a>                                                                                                                                                                                         | SEA      |
| 2.                        | UNFCCC   | <b>/unfccc/</b> | UNFCCC                                                                                                                                                                                                                                                                   | <a href="http://cdm.unfccc.int">http://cdm.unfccc.int</a>                                                                                                                                                                                                                       | UNFCCC   |
| 3.                        | IPCC     | <b>/ipcc/</b>   | IPCC publications                                                                                                                                                                                                                                                        | <a href="http://www.ipcc-nggip.iges.or.jp">www.ipcc-nggip.iges.or.jp</a>                                                                                                                                                                                                        | IPCC     |
| 4.                        | Ashden   | <b>/ash/</b>    | Ashden Awards                                                                                                                                                                                                                                                            | <a href="http://www.ashden.org/micro-hydro?gclid=CjwKEAjwsMu5BRD7t57R1P2HwBgSJABrtj-RBTxxfsChM3pOFGzThbkiU5iuYO6J31XR-DOB23am2xoCWc_w_wcB">http://www.ashden.org/micro-hydro?gclid=CjwKEAjwsMu5BRD7t57R1P2HwBgSJABrtj-RBTxxfsChM3pOFGzThbkiU5iuYO6J31XR-DOB23am2xoCWc_w_wcB</a> | Ashden   |
| 5.                        | RVE      | <b>/rve/</b>    | Rift Valley Energy                                                                                                                                                                                                                                                       | <a href="http://www.riftvalleyenergy.com/projects/mwenga-hydro/">http://www.riftvalleyenergy.com/projects/mwenga-hydro/</a>                                                                                                                                                     | RVE      |
| 6.                        | CD4CDM   | <b>/cd4cdm/</b> | Capacity Development for CDM                                                                                                                                                                                                                                             | <a href="http://www.cd4cdm.org/sub-Saharan%20Africa/Tanzania/GridEmissionFactor_Tanzania.xls">http://www.cd4cdm.org/sub-Saharan%20Africa/Tanzania/GridEmissionFactor_Tanzania.xls</a>                                                                                           | CD4CDM   |



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

**Table 2. Remaining FAR from validation and/or previous verifications**

|                                                      |    |                    |     |                         |
|------------------------------------------------------|----|--------------------|-----|-------------------------|
| <b>FAR ID</b>                                        | xx | <b>Section no.</b> | E.2 | <b>Date:</b> DD/MM/YYYY |
| <b>Description of FAR</b>                            |    |                    |     |                         |
| NA                                                   |    |                    |     |                         |
| <b>Project participant response</b>                  |    |                    |     | <b>Date:</b> DD/MM/YYYY |
|                                                      |    |                    |     |                         |
| <b>Documentation provided by project participant</b> |    |                    |     |                         |
|                                                      |    |                    |     |                         |
| <b>DOE assessment</b>                                |    |                    |     | <b>Date:</b> DD/MM/YYYY |
|                                                      |    |                    |     |                         |

**Table 3. CL from this verification**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                                                                                                                                                |                      |                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------|
| <b>CL ID</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 01                 | <b>Section no.</b>                                                                                                                             | E.1                  | <b>Date:</b> 12/06/2018 |
| <b>Description of CL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                                                                                                                                                |                      |                         |
| MR version 1.0, section E.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                                                                                                                                |                      |                         |
| Please clarify the following with regards to calculation of the grid emission factor for the monitoring period:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                                                                                                                                                |                      |                         |
| -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                                                                                                                                                |                      |                         |
| <ol style="list-style-type: none"> <li>As per PDD and section D.1 of the MR, the Simple Adjusted OM will be calculated ex-post. Please clarify why the simple OM is applied.</li> <li>The applied methodological tool to calculate the emission factor for an electricity system requires annual update of ex-post OM and BM emission factor (step 3 and step 5), whereas as per MR, only the 2016 grid emission factor is calculated.</li> </ol>                                                                                                                                                                                                                                                                                                                                                     |                    |                                                                                                                                                |                      |                         |
| <b>Project participant response (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                                                                                                                                                |                      | <b>Date:</b> 28/06/2018 |
| <ol style="list-style-type: none"> <li>Being as ex post monitoring parameter, PP can use any option as per "Tool to calculate the Emissions Factor for an electricity system", Thus if simple OM condition is fulfilled, then PP can use simple OM. Thus section D.1 of PDD is updated and PP can use any option as per requirement of tool.</li> <li>The grid emission factor for year 2016 and for year 2017 is calculated and excel sheets are submitted. The Grid Emission factor of year 2016 is considered for period 01/02/2016 to 31/01/2017 and Grid emission factor of year 2017 is considered for period 01/02/2017 to 31/01/2018 period. This is applied consistent with previous monitoring periods. The grid emission factor calculations spreadsheets are submitted to DOE.</li> </ol> |                    |                                                                                                                                                |                      |                         |
| <b>Documentation provided by project participant (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                                                                                                                                |                      |                         |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Changes in the PDD | Section(s):                                                                                                                                    | New version No.:     |                         |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Changes in MR      | Section(s): E.1                                                                                                                                | New version No.: 2.0 |                         |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Changes in XLS     | Worksheet(s):                                                                                                                                  | New version No.:     |                         |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Other:             |                                                                                                                                                |                      |                         |
| <b>DOE assessment (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                                                                                                                                                |                      | <b>Date:</b> 24/09/2018 |
| MR version 2.0, section E.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                                                                                                                                |                      |                         |
| <ol style="list-style-type: none"> <li>Simple OM can be applied ex-post. The same has now been applied in the updated grid emission factor calculations for 2016 and 2017</li> <li>The grid emission factor for year 2016 is considered for period 01/02/2016 to 31/01/2017 and Grid emission factor of year 2017 is considered for period 01/02/2017 to 31/01/2018 periods, consistent with previous monitoring periods.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                  |                    |                                                                                                                                                |                      |                         |
| <b>Conclusion</b><br><i>Tick the appropriate checkbox</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    | <input type="checkbox"/> Additional action should be taken (finding remains open)<br><input checked="" type="checkbox"/> The finding is closed |                      |                         |

Table 4. CAR from this verification

|                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                                                                                                                                                |                      |                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------|
| <b>CAR ID</b>                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>01</b>          | <b>Section no.</b>                                                                                                                             | <b>A.1</b>           | <b>Date:</b> 12/06/2018 |
| <b>Description of CAR</b>                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                                                                                                                                |                      |                         |
| MR version 1.0, section A.1<br>The MR indicates that the start of commercial operations was 17/09/2012. However, this is in contradiction with the first commercial invoice obtained onsite <sup>/CO/</sup> .                                                                                                                                                                                                                                         |                    |                                                                                                                                                |                      |                         |
| <b>Project participant response (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                            |                    |                                                                                                                                                |                      |                         |
| The date of interconnection certificate is 17/09/2012 and Mwenga is allowed to start official power export to TANESCO from date of interconnection certificate. Thus the date of 17/09/2012 is kept as commercial operation date. The interconnection certificate is submitted to DOE.                                                                                                                                                                |                    |                                                                                                                                                |                      |                         |
| <b>Documentation provided by project participant (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                           |                    |                                                                                                                                                |                      | <b>Date:</b> 28/06/2018 |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                              | Changes in the PDD | Section(s):                                                                                                                                    | New version No.:     |                         |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                   | Changes in MR      | Section(s): A.1                                                                                                                                | New version No.: 2.0 |                         |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                              | Changes in XLS     | Worksheet(s):                                                                                                                                  | New version No.:     |                         |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                              | Other:             |                                                                                                                                                |                      |                         |
| <b>DOE assessment (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                                                                                                                                                |                      | <b>Date:</b> 24/09/2018 |
| MR version 2.0, section A.2<br>The date on the interconnection certificate to the grid is 17/09/2012. The first TANESCO invoice is dated 18/10/2012 indicating that it is for electricity supplied in September 2012. The date of actual first generation is shown as 21/09/2012. Since Mwenga Hydro Power (MHP) was allowed to export power after interconnection, the date of 17/09/2012 is retained as the official start of commercial operations |                    |                                                                                                                                                |                      |                         |
| <b>Conclusion</b><br><i>Tick the appropriate checkbox</i>                                                                                                                                                                                                                                                                                                                                                                                             |                    | <input type="checkbox"/> Additional action should be taken (finding remains open)<br><input checked="" type="checkbox"/> The finding is closed |                      |                         |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                                                                                                                                |                      |                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------|
| <b>CAR ID</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>02</b>          | <b>Section no.</b>                                                                                                                             | <b>A.1</b>           | <b>Date:</b> 12/06/2018 |
| <b>Description of CAR</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                                                                                                                                                |                      |                         |
| MR version 1.0, section A.1<br>It was established onsite via interviews that MHL only acts as a backup supplier for both processing factories due to the unpredictability and unreliability of the TANESCO national grid (mechanical/electrical or transformer/transmission line breakdowns or scheduled/unscheduled maintenance). Hence, the observed fluctuations in consumption data by the factories. Furthermore, the Unilever TANESCO transformer broke down in December 2016 and was not replaced by the time of onsite visit, drawing electricity from Mwenga Hydro full time. This information is not provided in this section |                    |                                                                                                                                                |                      |                         |
| <b>Project participant response (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                                                                                                                                                |                      |                         |
| As per registered or revised PDD, PP can supply the electricity to any nearby processing factories. Currently the project activity supplied electricity to Mufindi Tea & Coffee Limited and Unilever Tea Tanzania Limited processing factories. The information about back up supplier is mentioned in section A.1 of MR.                                                                                                                                                                                                                                                                                                               |                    |                                                                                                                                                |                      |                         |
| <b>Documentation provided by project participant (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                                                                                                                                |                      | <b>Date:</b> 28/06/2018 |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Changes in the PDD | Section(s):                                                                                                                                    | New version No.:     |                         |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Changes in MR      | Section(s): A.1                                                                                                                                | New version No.: 2.0 |                         |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Changes in XLS     | Worksheet(s):                                                                                                                                  | New version No.:     |                         |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Other:             |                                                                                                                                                |                      |                         |
| <b>DOE assessment (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                                                                                                                                                |                      | <b>Date:</b> 24/09/2018 |
| MR version 2.0, section A.2<br>Relevant information is included sufficiently in section A.1 of the revised MR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                                                                                                                                |                      |                         |
| <b>Conclusion</b><br><i>Tick the appropriate checkbox</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    | <input type="checkbox"/> Additional action should be taken (finding remains open)<br><input checked="" type="checkbox"/> The finding is closed |                      |                         |

|                                                                                                          |           |                    |            |                         |
|----------------------------------------------------------------------------------------------------------|-----------|--------------------|------------|-------------------------|
| <b>CAR ID</b>                                                                                            | <b>03</b> | <b>Section no.</b> | <b>A.2</b> | <b>Date:</b> 12/06/2018 |
| <b>Description of CAR</b>                                                                                |           |                    |            |                         |
| MR version 1.0, section A.2<br>The location map is not updated to indicate the second processing factory |           |                    |            |                         |
| <b>Project participant response (1<sup>st</sup> round)</b>                                               |           |                    |            |                         |

|                                                                                                                             |               |                                                                                                                                                |                        |
|-----------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| The location map is revised to show the both processing factories involved in current monitoring period.                    |               |                                                                                                                                                |                        |
| <b>Documentation provided by project participant (1<sup>st</sup> round)</b>                                                 |               |                                                                                                                                                | <b>Date:28/06/2018</b> |
| <input type="checkbox"/> Changes in the PDD                                                                                 | Section(s):   | New version No.:                                                                                                                               |                        |
| <input checked="" type="checkbox"/> Changes in MR                                                                           | Section(s):   | New version No.: 2.0                                                                                                                           |                        |
| <input type="checkbox"/> Changes in XLS                                                                                     | Worksheet(s): | New version No.:                                                                                                                               |                        |
| <input type="checkbox"/> Other:                                                                                             |               |                                                                                                                                                |                        |
| <b>DOE assessment (1<sup>st</sup> round)</b>                                                                                |               |                                                                                                                                                | <b>Date:24/09/2018</b> |
| MR version 2.0, section A.2                                                                                                 |               |                                                                                                                                                |                        |
| The location map has been revised and labelled to show the both processing factories involved in current monitoring period. |               |                                                                                                                                                |                        |
| <b>Conclusion</b><br><i>Tick the appropriate checkbox</i>                                                                   |               | <input type="checkbox"/> Additional action should be taken (finding remains open)<br><input checked="" type="checkbox"/> The finding is closed |                        |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |                                                                                                                                                |            |                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------|
| <b>CAR ID</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>04</b>     | <b>Section no.</b>                                                                                                                             | <b>B.1</b> | <b>Date: 12/06/2018</b> |
| <b>Description of CAR</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |                                                                                                                                                |            |                         |
| MR version 1.0, section B.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                                                                                                                                                |            |                         |
| <ol style="list-style-type: none"> <li>It was determined onsite and also from the ER sheet version 1.0 that the MHL temporarily stopped supplying MTC with electricity from July 2017 to the end of the monitoring period and beyond.</li> <li>It was also determined onsite that due to breakdown of TANESCO transformer in November 2017 at the Unilever site, MHL started supplying electricity to both Unilever plants on a fulltime basis until the TANESCO transformer is repaired or replaced. This was to the end of the monitoring period and beyond</li> </ol> Both details are not included in the monitoring report |               |                                                                                                                                                |            |                         |
| <b>Project participant response (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               |                                                                                                                                                |            |                         |
| <ol style="list-style-type: none"> <li>The period of electricity supplied to MTC and UTTL are mentioned in revised MR. The temporarily stoppage of electricity to MTC has been mentioned in revised MR.</li> <li>As per revised PDD, the project activity can supply the electricity to any processing factories. The reason for supply of electricity to UTTL has been mentioned in revised MR.</li> </ol>                                                                                                                                                                                                                     |               |                                                                                                                                                |            |                         |
| <b>Documentation provided by project participant (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                                                                                                                                                |            | <b>Date:28/06/2018</b>  |
| <input type="checkbox"/> Changes in the PDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Section(s):   | New version No.:                                                                                                                               |            |                         |
| <input checked="" type="checkbox"/> Changes in MR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Section(s):   | New version No.: 2.0                                                                                                                           |            |                         |
| <input type="checkbox"/> Changes in XLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Worksheet(s): | New version No.:                                                                                                                               |            |                         |
| <input type="checkbox"/> Other:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |                                                                                                                                                |            |                         |
| <b>DOE assessment (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |                                                                                                                                                |            | <b>Date:24/09/2018</b>  |
| MR version 2.0, section B.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                                                                                                                                                |            |                         |
| <ol style="list-style-type: none"> <li>The information is sufficiently included in section A.1 of the MR</li> <li>The information is sufficiently included in section A.1 of the MR</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                                                                                                                                                |            |                         |
| <b>Conclusion</b><br><i>Tick the appropriate checkbox</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               | <input type="checkbox"/> Additional action should be taken (finding remains open)<br><input checked="" type="checkbox"/> The finding is closed |            |                         |

|                                                                                                |               |                      |          |                         |
|------------------------------------------------------------------------------------------------|---------------|----------------------|----------|-------------------------|
| <b>CAR ID</b>                                                                                  | <b>05</b>     | <b>Section no.</b>   | <b>C</b> | <b>Date: 16/05/2018</b> |
| <b>Description of CAR</b>                                                                      |               |                      |          |                         |
| MR version 1.0, section C                                                                      |               |                      |          |                         |
| The provided metering diagram points is not updated to indicate the second processing factory  |               |                      |          |                         |
| <b>Project participant response (1<sup>st</sup> round)</b>                                     |               |                      |          |                         |
| The metering diagram is revised and note is mentioned stating that processing factories covers |               |                      |          |                         |
| <b>Documentation provided by project participant (1<sup>st</sup> round)</b>                    |               |                      |          | <b>Date:28/06/2018</b>  |
| <input type="checkbox"/> Changes in the PDD                                                    | Section(s):   | New version No.:     |          |                         |
| <input checked="" type="checkbox"/> Changes in MR                                              | Section(s):   | New version No.: 2.0 |          |                         |
| <input type="checkbox"/> Changes in XLS                                                        | Worksheet(s): | New version No.:     |          |                         |
| <input type="checkbox"/> Other:                                                                |               |                      |          |                         |
| <b>DOE assessment (1<sup>st</sup> round)</b>                                                   |               |                      |          | <b>Date: 24/09/2018</b> |
| MR version 2.0, section C                                                                      |               |                      |          |                         |
| Figure C.1 does not depict all the metering points correctly                                   |               |                      |          |                         |

| Project participant response (2nd round)                                                                                                                    |                    |                                                                                                                                                |                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Figure C.1 is revised with mention of metering points. The meters of processing factories and TANESCO are used for net electricity and emission reductions. |                    |                                                                                                                                                |                     |
| Documentation provided by project participant (2nd round)                                                                                                   |                    |                                                                                                                                                | Date:01/10/2018     |
| <input type="checkbox"/>                                                                                                                                    | Changes in the PDD | Section(s):                                                                                                                                    | New version No.:    |
| <input checked="" type="checkbox"/>                                                                                                                         | Changes in MR      | Section(s):                                                                                                                                    | New version No.:3.0 |
| <input type="checkbox"/>                                                                                                                                    | Changes in XLS     | Worksheet(s):                                                                                                                                  | New version No.:    |
| <input type="checkbox"/>                                                                                                                                    | Other:             |                                                                                                                                                |                     |
| DOE assessment (2nd round)                                                                                                                                  |                    |                                                                                                                                                | Date:04/10/2018     |
| MR version 3.0, section C                                                                                                                                   |                    |                                                                                                                                                |                     |
| All metering points are now correctly shown                                                                                                                 |                    |                                                                                                                                                |                     |
| <b>Conclusion</b><br><i>Tick the appropriate checkbox</i>                                                                                                   |                    | <input type="checkbox"/> Additional action should be taken (finding remains open)<br><input checked="" type="checkbox"/> The finding is closed |                     |

| CAR ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 06                 | Section no.     | D.2                  | Date: 16/05/2018 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|----------------------|------------------|
| Description of CAR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                 |                      |                  |
| MR version 1.0, section D.2, parameter <b>EG</b> <sub>BL,y,1</sub><br>the following is necessary: -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                 |                      |                  |
| <ol style="list-style-type: none"> <li>1. The calibration and testing regime/standard applied to meters is not included.</li> <li>2. No testing/calibration details have been included and therefore not clear when calibration was done if at all for both processing factories</li> <li>3. Only details of the MTC main meter are included</li> <li>4. No accuracy class for both main and check meters included</li> <li>5. The value applied for October to December 2016 (MTC) is not consistent with the invoiced units</li> <li>6. The value applied for Jan 2017 (MTC) is not consistent with the invoiced units</li> <li>7. Generation raw data has not been submitted</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                 |                      |                  |
| Project participant response (1 <sup>st</sup> round)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                 |                      |                  |
| <ol style="list-style-type: none"> <li>1. The manufacturer's specifications are followed for calibration.</li> <li>2. As per the manufacturer's specifications no calibration is required for the meters.</li> <li>3. The meter details of both MTC and Unilever factories are included now.</li> <li>4. The accuracy class of meters are mentioned now.</li> <li>5. There was typo error in the invoice and invoiced KWh is lower than actual KWh based on closing reading and opening reading. However as a conservative purpose, the lower value mentioned in invoice is considered for emission reduction calculations.</li> <li>6. There was typo error in the invoice and invoiced KWh is lower than actual KWh based on closing reading and opening reading. However as a conservative purpose, the lower value mentioned in invoice is considered for emission reduction calculations.</li> <li>7. The generation raw data is submitted to DOE now.</li> </ol>                                                                                                                                       |                    |                 |                      |                  |
| Documentation provided by project participant (1 <sup>st</sup> round)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                 |                      | Date:28/06/2018  |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Changes in the PDD | Section(s):     | New version No.:     |                  |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Changes in MR      | Section(s): D.2 | New version No.: 2.0 |                  |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Changes in XLS     | Worksheet(s):   | New version No.:     |                  |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Other:             | /IMS//EMS/      |                      |                  |
| DOE assessment (1 <sup>st</sup> round)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                 |                      | Date:24/09/2018  |
| MR version 2.0, section D.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                 |                      |                  |
| <ol style="list-style-type: none"> <li>1. As per manufacturer specification, the ISKRAEMECO, the three-phase multi-function electronic meters MT830/MT831 do not require any maintenance or recalibration for their entire lifetime. The PPAs with buyers do not specify the calibration or testing frequency</li> <li>2. As per revised PDD, the calibration frequency is mentioned as per manufacturer's recommendation. The project activity involves ISKRA make and EDMI-mK10E make meters and no calibration is required as per manufacturer's recommendation. Thus there is no any calibration required and no any delay in calibration applicable. A PRC has been proposed in this verification as a permanent change to the monitoring plan<sup>/PRC/</sup></li> <li>3. Only details of the MTC main meter are included. For the other processing factories still pending</li> <li>4. Pending</li> <li>5. The value has been corrected and consistent with the provided invoice for October through December 2016. The explanation for the discrepancy is plausible and has been accepted</li> </ol> |                    |                 |                      |                  |

6. The value has been corrected and consistent with the provided invoice for January 2017. The explanation for the discrepancy is plausible and has been accepted
7. Raw generation data for the processing factories has been furnished for verification. No discrepancy has been noted in the raw data cross-checked with calculations

**Project participant response (2nd round)**

- 3) The meter details for MTC and Unilever are mentioned in revised MR.
- 4) The meter accuracy class is mentioned in revised MR.

| Documentation provided by project participant (2nd round) |               | Date:01/10/2018     |
|-----------------------------------------------------------|---------------|---------------------|
| <input type="checkbox"/> Changes in the PDD               | Section(s):   | New version No.:    |
| <input checked="" type="checkbox"/> Changes in MR         | Section(s):   | New version No.:3.0 |
| <input type="checkbox"/> Changes in XLS                   | Worksheet(s): | New version No.:    |
| <input type="checkbox"/> Other:                           |               |                     |

**DOE assessment (2nd round)**

Date:04/10/2018

MR version 3.0, section D.2

3. Both meter details for MTC and Unilever are indicated separately now and are correct as seen onsite
4. Both meter details including accuracy classes for MTC and Unilever are indicated now

**Conclusion**

Tick the appropriate checkbox

- ☐ Additional action should be taken (finding remains open)
- ☒ The finding is closed

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                 |                    |                      |                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------|----------------------|-------------------------|
| <b>CAR ID</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>07</b>       | <b>Section no.</b> | <b>D.2</b>           | <b>Date: 16/05/2018</b> |
| <b>Description of CAR</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                 |                    |                      |                         |
| MR version 1.0, section D.2, parameter <b>EG<sub>BL,y,2</sub></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |                    |                      |                         |
| The following is necessary: -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                 |                    |                      |                         |
| <ol style="list-style-type: none"> <li>1. The calibration and testing regime/standard is not included.</li> <li>2. It was determined onsite that the biennial calibration frequency was not adhered to during this monitoring period (calibration validity was up to 13/12/2017). The delayed calibration has not been conducted and the ex-post ER calculations have not accounted for this as per §372 of the CDM VVS version 2.0</li> <li>3. The value applied for May 2016 (TANESCO) is not consistent with the invoiced units</li> <li>4. Generation raw data for 2016 and 2017 has not been submitted</li> </ol>                                                                                                                                                                                                                                                                                                                                                                              |                 |                    |                      |                         |
| <b>Project participant response (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                    |                      |                         |
| <ol style="list-style-type: none"> <li>1. The manufacturer's specifications are followed for calibration.</li> <li>2. As per revised PDD, the calibration frequency is mentioned as per manufacturer's recommendation. The project activity involves ISKRA make and EDM1-mK10E make meters and no calibration is required as per manufacturer's recommendation. Thus there is no any calibration required and no any delay in calibration applicable.</li> <li>3. The correct invoice is submitted now. The export of 2,357,632 KWh for May 2016 month is correct.</li> <li>4. Generation Raw data is submitted</li> </ol>                                                                                                                                                                                                                                                                                                                                                                          |                 |                    |                      |                         |
| <b>Documentation provided by project participant (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |                    |                      | <b>Date: 28/06/2018</b> |
| <input type="checkbox"/> Changes in the PDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Section(s):     |                    | New version No.:     |                         |
| <input checked="" type="checkbox"/> Changes in MR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Section(s): D.2 |                    | New version No.: 2.0 |                         |
| <input type="checkbox"/> Changes in XLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Worksheet(s):   |                    | New version No.:     |                         |
| <input type="checkbox"/> Other:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                 |                    |                      |                         |
| <b>DOE assessment (1<sup>st</sup> round)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |                    |                      | <b>Date:24/09/2018</b>  |
| MR version 2.0, section D.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |                    |                      |                         |
| <ol style="list-style-type: none"> <li>1. As per manufacturer specification, the electronic meters EDM1 mK10E do not have any specific calibration regime. However, as per clause 14 i) of the PPA between MHL and TANESCO, the responsibility in case of need is with TANESCO as per their metering standards. TANESCO is also the grid operator</li> <li>2. Calibration is as per manufacturer specification. For the meters measuring electricity during this MP, both meters require neither maintenance nor calibration in their entire lifetime. A PRC has been proposed in this verification as a permanent change to the monitoring plan<sup>/PRC/</sup>.</li> <li>3. The electricity invoice for May 2016 has been provided and checked to be correct and applied correctly in the calculations</li> <li>4. Raw generation data for the processing factories has been furnished for verification. No discrepancy has been noted in the raw data cross-checked with calculations</li> </ol> |                 |                    |                      |                         |

|                                                           |                                                                                   |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Conclusion</b><br><i>Tick the appropriate checkbox</i> | <input type="checkbox"/> Additional action should be taken (finding remains open) |
|                                                           | <input checked="" type="checkbox"/> The finding is closed                         |

|                                                                                                                                                                                                |                                                                                   |                    |                      |                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------|----------------------|-------------------------|
| <b>CAR ID</b>                                                                                                                                                                                  | <b>08</b>                                                                         | <b>Section no.</b> | <b>B.2</b>           | <b>Date:</b> 05/11/2018 |
| <b>Description of CAR</b>                                                                                                                                                                      |                                                                                   |                    |                      |                         |
| MR version 4.0, section B.2, General finding after technical review<br>The section B.2 of the MR does not refer to already approved PRC-9550-001. However instructions to fill MR require this |                                                                                   |                    |                      |                         |
| <b>Project participant response (1<sup>st</sup> round)</b>                                                                                                                                     |                                                                                   |                    |                      |                         |
| The section B.2 of MR is revised with mention of already approved temporary deviation and corrections during first verification of project activity.                                           |                                                                                   |                    |                      |                         |
| <b>Documentation provided by project participant (1<sup>st</sup> round)</b>                                                                                                                    |                                                                                   |                    |                      | <b>Date:</b> 29/11/2018 |
| <input type="checkbox"/>                                                                                                                                                                       | Changes in the PDD                                                                | Section(s):        | New version No.:     |                         |
| <input checked="" type="checkbox"/>                                                                                                                                                            | Changes in MR                                                                     | Section(s):        | New version No.: 4.0 |                         |
| <input type="checkbox"/>                                                                                                                                                                       | Changes in XLS                                                                    | Worksheet(s):      | New version No.:     |                         |
| <input type="checkbox"/>                                                                                                                                                                       | Other:                                                                            |                    |                      |                         |
| <b>DOE assessment (2<sup>nd</sup> round)</b>                                                                                                                                                   |                                                                                   |                    |                      | <b>Date:</b> 29/11/2018 |
| MR version 4.0, section B.2<br>The section B.2.1, B.2.2 and B.2.6 shall be completed in accordance with instructions to complete the template version 6.0                                      |                                                                                   |                    |                      |                         |
| <b>Project participant response (1<sup>st</sup> round)</b>                                                                                                                                     |                                                                                   |                    |                      |                         |
| The section B.2.1, B.2.2 and B.2.6 are completed in accordance with instructions to complete the template version 6.0                                                                          |                                                                                   |                    |                      |                         |
| <b>Documentation provided by project participant (1<sup>st</sup> round)</b>                                                                                                                    |                                                                                   |                    |                      | <b>Date:</b> 30/11/2018 |
| <input type="checkbox"/>                                                                                                                                                                       | Changes in the PDD                                                                | Section(s):        | New version No.:     |                         |
| <input checked="" type="checkbox"/>                                                                                                                                                            | Changes in MR                                                                     | Section(s):        | New version No.: 5.0 |                         |
| <input type="checkbox"/>                                                                                                                                                                       | Changes in XLS                                                                    | Worksheet(s):      | New version No.:     |                         |
| <input type="checkbox"/>                                                                                                                                                                       | Other:                                                                            |                    |                      |                         |
| <b>DOE assessment (2<sup>nd</sup> round)</b>                                                                                                                                                   |                                                                                   |                    |                      | <b>Date:</b> 30/11/2018 |
| MR version 5.0, section B.2<br>Sections B.2.1, B.2.2 and B.2.6 are now as per the latest template                                                                                              |                                                                                   |                    |                      |                         |
| <b>Conclusion</b><br><i>Tick the appropriate checkbox</i>                                                                                                                                      | <input type="checkbox"/> Additional action should be taken (finding remains open) |                    |                      |                         |
|                                                                                                                                                                                                | <input checked="" type="checkbox"/> The finding is closed                         |                    |                      |                         |

Table 5. FAR from this verification

|                                                      |            |                    |  |                         |
|------------------------------------------------------|------------|--------------------|--|-------------------------|
| <b>FAR ID</b>                                        | <b>N/A</b> | <b>Section No.</b> |  | <b>Date:</b> DD/MM/YYYY |
| <b>Description of FAR</b>                            |            |                    |  |                         |
| N/A                                                  |            |                    |  |                         |
| <b>Project participant response</b>                  |            |                    |  | <b>Date:</b> DD/MM/YYYY |
| <b>Documentation provided by project participant</b> |            |                    |  |                         |
| <b>DOE assessment</b>                                |            |                    |  |                         |
|                                                      |            |                    |  | <b>Date:</b> DD/MM/YYYY |

## Appendix 5. Monitored Parameters

**Table A-5:** Periodic Verification Checklist – Monitored Parameters

| Checklist Item<br>(incl. guidance for the verification team)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Reference                                                             | Verification Team Comments<br>(Means and results of assessment)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Draft<br>Concl. | Final<br>Concl. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|
| <b>1. EG</b> <small>BL,y,1</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                       | <b>Net electricity generated by the Hydropower plant which is to be delivered to meet the requirements of the processing factories , but not including offset emissions from diesel backup generators</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                 |
| <b>a) Measurement / Determination method (VVS, §§ 349-351)</b><br><i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i> | /MR/<br>/ER/<br>/INV/<br>/PDD1/<br>/PDD2/<br>/AMS/<br>/IM01/<br>/IMS/ | <b>Description:</b><br>This parameter measures the net electricity generated and delivered to the local processing factories. During this monitoring period, the factories connected and considered are MTC and Unilever.<br>The parameter is measured continuously by a set of one main and one back-up bi-directional tri-vector meters installed at the metering stations at MTC and at Unilever, and recorded monthly. The energy meters are bidirectional but record power imported and exported that can be read separately. The power meters do not require calibration, however, as per the monitoring plan, if possible calibrated repaired or replaced in case a party suspects fault. The meter readings are read once a month by representatives of the customers and MHL staff. | CAR-04          | OK              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                       | <b>Verifier's action:</b><br>The verification team checked the generation data, visited the interconnection point and interviewed MHL and Unilever staff                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                 |                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                       | <b>Conclusion:</b><br>The parameter is monitored according to the revised PDD and applied methodology.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                 |                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                       | <input checked="" type="checkbox"/> In this context the following findings have been raised:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |                 |

| Checklist Item<br>(incl. guidance for the verification team)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Reference                                                   | Verification Team Comments<br>(Means and results of assessment)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Draft<br>Concl.                        | Final<br>Concl. |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                             | <input checked="" type="checkbox"/> CAR 04<br><input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                        |                 |
| <p><b>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 365-371)</b><br/> <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i><br/> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i><br/> <i>Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i></p> | /MR/<br>/CL/<br>/INV/<br>/PDD1/<br>/PDD2/<br>/ER/<br>/IM01/ | <input type="checkbox"/> It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan<br><input type="checkbox"/> For details regarding the accuracy and calibration details please refer to Appendix 6<br><input type="checkbox"/> No delayed calibration has occurred<br><input type="checkbox"/> As per the initial assessment the monitored value is deemed to be correct.<br><input type="checkbox"/> Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.<br><input checked="" type="checkbox"/> Based on calibration certificates checked a delay in calibration has been identified for the following period:<br>Start date of delay: DD/MM/YYYY<br>End date of delay: DD/MM/YYYY<br><input type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:<br><input type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration<br><input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument<br><input type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument | <del>CAR-06</del><br><del>CAR-07</del> | OK              |



| Checklist Item<br>(incl. guidance for the verification team)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Reference                                                                                                                                                                                                      | Verification Team Comments<br>(Means and results of assessment)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Draft<br>Concl.          | Final<br>Concl.                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |                                     |        |  |  |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                | <table border="1"> <tr> <td data-bbox="1108 256 1182 384"><input type="checkbox"/></td> <td data-bbox="1182 256 1856 384">The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals</td> </tr> <tr> <td data-bbox="1108 384 1182 480"><input type="checkbox"/></td> <td data-bbox="1182 384 1856 480">The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.</td> </tr> <tr> <td data-bbox="1108 480 1182 528"><input checked="" type="checkbox"/></td> <td data-bbox="1182 480 1856 528">In this context the following findings have been raised:</td> </tr> <tr> <td data-bbox="1108 528 1182 576"><input checked="" type="checkbox"/></td> <td data-bbox="1182 528 1856 576">CAR 06</td> </tr> <tr> <td data-bbox="1108 576 1182 624"><input checked="" type="checkbox"/></td> <td data-bbox="1182 576 1856 624">CAR 07</td> </tr> </table> | <input type="checkbox"/> | The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals | <input type="checkbox"/> | The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration. | <input checked="" type="checkbox"/> | In this context the following findings have been raised: | <input checked="" type="checkbox"/> | CAR 06 | <input checked="" type="checkbox"/> | CAR 07 |  |  |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |                                     |        |  |  |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |                                     |        |  |  |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | In this context the following findings have been raised:                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |                                     |        |  |  |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CAR 06                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |                                     |        |  |  |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CAR 07                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |                                     |        |  |  |
| <b>2. EG</b> <small>BL,y,2</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                | <b>Net electricity generated by the Hydropower plant which is delivered to the TANESCO national grid</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |                                     |        |  |  |
| <p><b>a) Measurement / Determination method (VVS, §§ 349-351)</b><br/> Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</p> | / MR/<br>/ ER/<br>/ CL/<br>/ PDD2/<br>/ AMS/<br>/ INV/<br>/ IM01/<br>/ EMS/                                                                                                                                    | <p><i>Description:</i></p> <p>This parameter measures the net electricity generated by MHL and delivered to the TANESCO national grid by the hydropower plant.</p> <p>The parameter is measured continuously by 1 main meter and 1 backup bi-directional meters installed at the interconnection point located at MTC premises. The meter are bidirectional but record power imported and exported separately. The main meter installed to monitor the net electricity exported to the grid has accuracy of 0.5s.</p> <p>The value for the current monitoring period was reported in Section D.2 of the draft MR and was derived from the electricity protocols measured by the main meter for the monitoring period.</p> <p>The monthly accumulated data (kWh) from the electricity protocols for power exported is read and recorded jointly by the project proponent staff and representatives of the grid company TANESCO.</p> <p>According to the monitoring plan in the revised PDD, the power meters do not require calibration</p> <p><i>Verifier's action:</i></p>                       | <del>CAR-08</del>        | OK                                                                                                                                                                                                             |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |                                     |        |  |  |



| Checklist Item<br>(incl. guidance for the verification team)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Reference                                                                                                                                                                                                      | Verification Team Comments<br>(Means and results of assessment)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Draft<br>Concl. | Final<br>Concl.                                                  |                          |                                                                                                                        |                          |                                                                                                                                                |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |  |  |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                | <table border="1"> <tr> <td data-bbox="1106 256 1182 320"></td> <td data-bbox="1182 256 1856 320">scheduled date of calibration and the actual date of calibration</td> </tr> <tr> <td data-bbox="1106 320 1182 416"><input type="checkbox"/></td> <td data-bbox="1182 320 1856 416">The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument</td> </tr> <tr> <td data-bbox="1106 416 1182 512"><input type="checkbox"/></td> <td data-bbox="1182 416 1856 512">The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument</td> </tr> <tr> <td data-bbox="1106 512 1182 608"><input type="checkbox"/></td> <td data-bbox="1182 512 1856 608">The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals</td> </tr> <tr> <td data-bbox="1106 608 1182 735"><input type="checkbox"/></td> <td data-bbox="1182 608 1856 735">The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.</td> </tr> <tr> <td data-bbox="1106 735 1182 783"><input checked="" type="checkbox"/></td> <td data-bbox="1182 735 1856 783">In this context the following findings have been raised:</td> </tr> <tr> <td data-bbox="1106 783 1182 826"><input checked="" type="checkbox"/></td> <td data-bbox="1182 783 1856 826">CAR 08</td> </tr> </table> |                 | scheduled date of calibration and the actual date of calibration | <input type="checkbox"/> | The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument | <input type="checkbox"/> | The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument | <input type="checkbox"/> | The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals | <input type="checkbox"/> | The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration. | <input checked="" type="checkbox"/> | In this context the following findings have been raised: | <input checked="" type="checkbox"/> | CAR 08 |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | scheduled date of calibration and the actual date of calibration                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                                                                  |                          |                                                                                                                        |                          |                                                                                                                                                |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |  |  |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                                                                  |                          |                                                                                                                        |                          |                                                                                                                                                |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |  |  |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                                                                  |                          |                                                                                                                        |                          |                                                                                                                                                |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |  |  |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                                                                  |                          |                                                                                                                        |                          |                                                                                                                                                |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |  |  |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                                                                  |                          |                                                                                                                        |                          |                                                                                                                                                |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |  |  |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | In this context the following findings have been raised:                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                                                                  |                          |                                                                                                                        |                          |                                                                                                                                                |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |  |  |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CAR 08                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                                                                  |                          |                                                                                                                        |                          |                                                                                                                                                |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |  |  |
| <b>3. EF<sub>CO2,y</sub></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                | <b>Grid emissions factor calculated in accordance with applicable UNFCCC methodologies, guidance, and requirements</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |                                                                  |                          |                                                                                                                        |                          |                                                                                                                                                |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |  |  |
| <p><b>a) Measurement / Determination method (VVS, §§ 349-351)</b><br/> Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</p> | / MR /<br>/ ER /<br>/ AMS /<br>/ PDD2 /<br>/ cd4cdm /<br>/ PRC /                                                                                                                                               | <p><i>Description:</i></p> <p>This is a calculated parameter for the grid emission factor of the national grid, and relies on official hourly generation data provided by TANESCO.</p> <p>For the 2016 &amp; 2017 ex-post OM, Simple OM method has been applied since low-cost/must-run resources (hydro resources) constitute less than 50% of total grid generation in an average of the five most recent years respectively. All low-cost/must run resources are therefore emissions-free. The simple OMs have been calculated based on the net electricity generation and a CO<sub>2</sub> emission factor of each power unit (Option A).</p> <p>The CO<sub>2</sub> emissions factor of each power unit <math>m</math> (EF<sub>EL,m,y</sub>) is determined as per Option A.2. Since data on electricity generation</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | CL-01           | OK                                                               |                          |                                                                                                                        |                          |                                                                                                                                                |                          |                                                                                                                                                                                                                |                          |                                                                                                                                                      |                                     |                                                          |                                     |        |  |  |

| Checklist Item<br>(incl. guidance for the verification team)                                                                                                                                                                                                                                                                                                               | Reference                                                                                                                                  | Verification Team Comments<br>(Means and results of assessment)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Draft<br>Concl.                     | Final<br>Concl.                                                                                                                            |                                     |                                                                                       |                          |                                     |              |           |
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|                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                            | <p>and the fuel types used is available, the emission factor was be determined based on the CO<sub>2</sub> emission factor of the fuel type used and the efficiency of each power unit.</p> <p>In the calculation of the 2016 &amp; 2017 BMs, the set of the most recent power plants built that generated 20% of the country's electricity was found to be lower than the amount of electricity generated by the set comprising the five most recently built power plants. Therefore, the latter set of power plants is correctly taken for the purpose of determining the Build Margin emissions factor.</p> <p>The calculation of the CM followed the GEF tool, which prescribes the weightings to be used are as follows: <input type="checkbox"/><sub>OM</sub> = 0.5 and <input type="checkbox"/><sub>BM</sub> = 0.5 for the first crediting period</p> <p><i>Verifier's action:</i></p> <p>The data from spreadsheets were checked against the data from the monthly electricity protocols provided by grid operator (TANESCO), to confirm the consistency in the data applied in the net electricity calculation.</p> <p><i>Conclusion:</i></p> <p>The parameter is monitored in accordance with the monitoring plan in the revised PDD and applied methodology and related tool. CL 01 has been raised and successfully resolved</p> <table><tr><td><input checked="" type="checkbox"/></td><td>In this context the following findings have been raised:</td></tr><tr><td><input checked="" type="checkbox"/></td><td>CL 01</td></tr></table> | <input checked="" type="checkbox"/> | In this context the following findings have been raised:                                                                                   | <input checked="" type="checkbox"/> | CL 01                                                                                 |                          |                                     |              |           |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                        | In this context the following findings have been raised:                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                            |                                     |                                                                                       |                          |                                     |              |           |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                        | CL 01                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                            |                                     |                                                                                       |                          |                                     |              |           |
| <p><b>b) Accuracy, correctness and QA/QC Procedure (VVS, §§ 365-371)</b></p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions</i></p> | <p>/MR/<br/>/PDD2/<br/>/IM01/<br/>/ER/</p>                                                                                                 | <table><tr><td><input type="checkbox"/></td><td>It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan</td></tr><tr><td><input type="checkbox"/></td><td>For details regarding the accuracy and calibration details please refer to Appendix 6</td></tr><tr><td><input type="checkbox"/></td><td>No delayed calibration has occurred</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <input type="checkbox"/>            | It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan | <input type="checkbox"/>            | For details regarding the accuracy and calibration details please refer to Appendix 6 | <input type="checkbox"/> | No delayed calibration has occurred | <p>CL-01</p> | <p>OK</p> |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                   | It is confirmed that the accuracy of the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                            |                                     |                                                                                       |                          |                                     |              |           |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                   | For details regarding the accuracy and calibration details please refer to Appendix 6                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                            |                                     |                                                                                       |                          |                                     |              |           |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                   | No delayed calibration has occurred                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                            |                                     |                                                                                       |                          |                                     |              |           |

| Checklist Item<br>(incl. guidance for the verification team)                                                                                                                                                                                                                                                                                                                        | Reference | Verification Team Comments<br>(Means and results of assessment)                                                                                                                                                                         | Draft<br>Concl. | Final<br>Concl. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|
| <i>theoretically possible have been made for calculating ERs.<br/>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.<br/>Include calibration dates and information in validity of the installed monitoring equipment in the table in Appendix 6.</i> |           | <input type="checkbox"/> As per the initial assessment the monitored value is deemed to be correct.                                                                                                                                     |                 |                 |
|                                                                                                                                                                                                                                                                                                                                                                                     |           | <input type="checkbox"/> Based on calibration certificates checked it can be confirmed that the monitoring equipment has been duly calibrated for this entire monitoring period.                                                        |                 |                 |
|                                                                                                                                                                                                                                                                                                                                                                                     |           | <input type="checkbox"/> Based on calibration certificates checked a delay in calibration has been identified for the following period:<br><br>Start date of delay: DD/MM/YYYY<br>End date of delay: DD/MM/YYYY                         |                 |                 |
|                                                                                                                                                                                                                                                                                                                                                                                     |           | <input type="checkbox"/> A delay in calibration has been identified, the PP applied related actions and therefore the DOE can confirm that the:                                                                                         |                 |                 |
|                                                                                                                                                                                                                                                                                                                                                                                     |           | <input type="checkbox"/> The maximum permissible error of the instrument has been applied to the values during the period between scheduled date of calibration and the actual date of calibration                                      |                 |                 |
|                                                                                                                                                                                                                                                                                                                                                                                     |           | <input type="checkbox"/> The result of the delayed calibration did not identify an error beyond the maximum permissible error of the instrument                                                                                         |                 |                 |
|                                                                                                                                                                                                                                                                                                                                                                                     |           | <input type="checkbox"/> The error as identified during the delayed calibration has been applied as the error is beyond the maximum permissible error of the instrument                                                                 |                 |                 |
|                                                                                                                                                                                                                                                                                                                                                                                     |           | <input type="checkbox"/> The error has been applied in a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals |                 |                 |
|                                                                                                                                                                                                                                                                                                                                                                                     |           | <input type="checkbox"/> The error has been applied all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.                                                           |                 |                 |
|                                                                                                                                                                                                                                                                                                                                                                                     |           | <input checked="" type="checkbox"/> In this context the following findings have been raised:<br><input checked="" type="checkbox"/> CL 01                                                                                               |                 |                 |

## Appendix 6. Calibration dates and validity of installed monitoring equipment

**Table A-6:** Periodic Verification Checklist – Calibration details

| Monitoring equipment | Related monitoring parameter as per applicable registered monitoring plan | Serial number | Type | Accuracy or accuracy class | Previous calibration (last calibration before start of this monitoring period) | Calibration date(s) during this monitoring period | Validity of calibration(s) | Delay in calibration : yes/no | Period of delayed calibration |
|----------------------|---------------------------------------------------------------------------|---------------|------|----------------------------|--------------------------------------------------------------------------------|---------------------------------------------------|----------------------------|-------------------------------|-------------------------------|
| N/A                  | N/A                                                                       | N/A           | N/A  | N/A                        | N/A                                                                            | N/A                                               | N/A                        | N/A                           | N/A                           |
|                      |                                                                           |               |      |                            |                                                                                |                                                   |                            |                               |                               |
|                      |                                                                           |               |      |                            |                                                                                |                                                   |                            |                               |                               |
|                      |                                                                           |               |      |                            |                                                                                |                                                   |                            |                               |                               |

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**Document information**

| <i>Version</i>                                                                                                                             | <i>Date</i>     | <i>Description</i>                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------|
| 02.1                                                                                                                                       | 11 January 2018 | Editorial revision to correct the numbering of appendices in the instructions.                                                   |
| 02.0                                                                                                                                       | 31 October 2017 | Revision to align with the requirements of the “CDM validation and verification standard for project activities” (version 01.0). |
| 01.0                                                                                                                                       | 23 March 2015   | Initial publication.                                                                                                             |
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