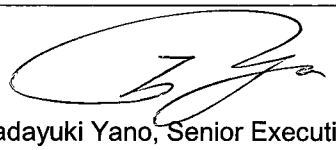
Verification and certification report form for CDM programme of activities

(version 01.0)

Complete this form in accordance with the "Attachment. Instructions for filling out the verification and certification report form for CDM programme of activities" at the end of this form.

VERICATION AND CERTIFICATION REPORT		
Title of the programme of activities (PoA)	South Africa Renewable Energy Programme (SA-REP)	
UNFCCC reference number of the PoA	7570	
Version number(s) of the PoA-DD(s) applicable to this report	07	
Version number of the verification and certification report	01	
Completion date of the verification and certification report	22/01/2016	
Monitoring period number	1	
Duration of this monitoring period	05/10/2013 – 30/06/2015	
Number and version number of the monitoring report to which this report applies	Monitoring report number: 01 Monitoring report version number: 02	
Coordinating/managing entity (CME)	Additional Energy Limited	
Host Party(ies)	Host Party(ies) of the PoA	Is this a host Party to a CPA covered in this report? (yes/no)
	Republic of South Africa	Yes
Sectoral scope(s)	1. Energy industries (renewable / non-renewable sources)	
Selected methodology(ies)	AMS-I.D – Grid connected renewable electricity generation (ver. 17)	
Selected standardized baseline(s)	ASB0001 "Grid emission factor for the Southern African power pool" ver.01.0	
Total estimated GHG emission reductions or net GHG removals for this monitoring period in the included CPA(s) covered in this report	89,996 tCO2e	
Total certified GHG emission reductions or net GHG removals for this monitoring period for the included CPA(s) covered in this report	91,689 tCO2e	
Name of DOE	Japan Quality Assurance Organization	
Name, position and signature of the approver of the verification and certification report	 Tadayuki Yano, Senior Executive	

SECTION A. Executive summary

Brief Summary

Japan Quality Assurance Organization (JQA) has performed the 1st periodic verification of the emission reductions achieved by the small-scale registered CDM PoA "South Africa Renewable Energy Programme (SA-REP) (Ref. 7570, registered on 09/10/2012)" under the contract with Additional Energy Limited. The verification covers the monitoring period from 05/10/2013 to 30/06/2015. Three CPAs of CPA7570-0001, CPA7570-0002 and CPA7570-0003 under the registered PoA were implemented during the 1st monitoring period and the emission reductions achieved by the implementation of these three CPAs were claimed for this monitoring period.

The objective of the registered PoA is to generate electricity using small hydro, wind, solar photovoltaic (PV) and geothermal and to contribute to the reduction of GHG emissions from grid electricity which is mainly supplied by coal-fired power stations.

Through the verification of these three CPAs using solar PV technology, JQA raised seven CARs and five CLs. As a result of the resolution of these CARs/CLs, JQA confirms that the three CPAs and their monitoring activities are implemented and operated in accordance with the registered PoA-DD, the registered monitoring plan and the applied methodology/ tools.

The GHG emission reductions are transparently and correctly calculated in accordance with the methodology AMS-I.D (ver.17) and the registered PoA-DD. JQA determines that the claimed emission reductions of 91,689 tCO_2e in the 1st monitoring period are free from material errors, omissions or misstatements with a reasonable level of assurance.

Scope of verification

The Monitoring Report (ver. 01 and ver. 02) and the ER Calculation Spreadsheet (ver. 1.0 and ver. 02) were reviewed against:

- Decisions by UNFCCC
- Kyoto Protocol
- Decision 3 and 4/ CMP.1
- Relevant decisions of COP/MOP and CDM-EB
- Monitoring report form for CDM programme of activities (ver. 01.0) including Attachment: Instructions for filling out the monitoring report form for CDM programme of activities
- CDM Validation and Verification Standard (VVS) (ver. 09.0)
- CDM Project Standard (PS) (ver. 09.0)

The MR and the ER calculation spreadsheet were also assessed to confirm their conformities with the following documents:

- Registered PoA-DD
- Registered CPA-DDs of CPA7570-0001, CPA7570-0002 and CPA7570-0003 under the registered PoA
- Validation Reports of the registered PoA-DD and each CPA-DDs
- AMS-I.D – Grid connected renewable electricity generation (ver. 17)
- ASB0001- Standardized baseline for Grid emission factor for the Southern African power pool (ver. 01.0)
- Tool to calculate the emission factor for an electricity system (ver. 02.2.1)
- Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion (ver. 02)
- All supporting documents relevant to the MR and the ER calculation

Verification process

The verification process of JQA consists of the following steps:

1) Desk review of relevant documents including MR provided from the CME and each CPA developer;
2) Materiality assessment and preparation of verification and sampling plan;
3) On-site assessment including site-tour, interview with the relevant personnel, cross-check of the data and the calculation for GHG emission reductions, and identification of the PPs' quality control and the quality assurance procedures;
4) Resolution of corrective action requests (CARs) and clarification requests (CLs); In case that forward action requests (FARs) are raised, the CME and CPA developer are expected to address the issues for the next verification period;
5) Preparation of the draft Verification and Certification Report; and
6) Internal quality control (Technical Review) and final decision on the issuance of Verification and Certification Report

In order to ensure transparency, CDM Verification Checklist is customized for the project according to VVS and decisions/rulings issued by the CDM-EB. Issues identified in the verification process are indicated under the titles "CAR", "CL" and "FAR" in the checklist and are listed in Appendix 4 of this report. The verification process does not provide the project participants with any consulting service. However, appropriate actions to CARs, CLs and FARs could contribute to improve monitoring documentations and monitoring activities.

The criteria for CAR, CL and FAR according to VVS are as follows:

CAR (Corrective Action Request)

a) Non-compliance with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient
b) Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
c) Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
d) Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

CL (Clarification Request)

a) Information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

FAR (Forward Action Request)

a) Monitoring and reporting require attention and/or adjustment for the next verification period.

JQA lists all issues and findings in Appendix 4 of this report.

Verification conclusion

Based on the 1st periodic verification of the registered PoA "South Africa Renewable Energy Programme (SA-REP)" and its three CPAs (7570-0001, 7570-0002 and 7570-0003) for the monitoring period from 05/10/2013 to 30/06/2015, JQA confirms that the registered PoA and CPAs and their monitoring activities are implemented and operated in accordance with the registered PoA-DD and CPA-DDs, the registered monitoring plan and the monitoring methodology/ tools.

The GHG emission reductions are transparently and correctly calculated based on the methodology AMS-I.D (ver. 17) and ASB0001 (ver. 01.0). JQA determines that the claimed emission reductions of 91,689 tCO_2e in the 1st monitoring period are free from material errors, omissions or misstatements with a reasonable level of assurance.

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team members

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader	IR	Motokawa	Hiroshi	Tokyo central office	×	×	×	×
2.	Verifier	EI	Yoshida	Tadashi	N/A	×	×	×	×

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

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Tanabe	Koichiro	Tokyo central office
2.	Approver	IR	Yano	Tadayuki	Tokyo central office

SECTION C. Means of verification

C.1. Desk review

The desk review involves;

- A review of the data and information presented to verify their completeness;
- A review of the monitoring plan, monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;
- A review of calculation and assumptions made in determining the GHG data and emission reductions;
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

Documents reviewed or referenced during the verification are listed in Appendix 3 of this report.

C.2. On-site inspection

Duration of on-site inspection: DD/MM/YYYY to DD/MM/YYYY				
No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1.	Assessment of implementation and operation of the project activity based on the registered monitoring plan and physical features of the project activity as per PoA-DD and CPA-DDs	Northern Cape Province, South Africa	29/10/2015 - 31/10/2015	Hiroshi Motokawa Tadashi Yoshida
2.	Review of information flows for generating, aggregating and reporting the monitoring parameters	Northern Cape Province, South Africa	29/10/2015 - 31/10/2015	Hiroshi Motokawa Tadashi Yoshida
3.	Interview with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the CPA-DD	Northern Cape Province, South Africa	29/10/2015 - 31/10/2015	Hiroshi Motokawa Tadashi Yoshida
4.	Check of the monitoring equipment including calibration performance against the requirements of the CPA-DD, the applied methodology and national standards, where applicable	Northern Cape Province, South Africa	29/10/2015 - 31/10/2015	Hiroshi Motokawa Tadashi Yoshida
5.	Cross-check between information provided in the monitoring report and data from other sources such as plant logbook, sales/purchase invoices or	Northern Cape Province, South Africa	29/10/2015 - 31/10/2015	Hiroshi Motokawa Tadashi Yoshida
6.	Review of calculation and assumption made in determining the GHG data and emission reductions	Northern Cape Province, South Africa	29/10/2015 - 31/10/2015	Hiroshi Motokawa Tadashi Yoshida
7.	Identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters	Northern Cape Province, South Africa	29/10/2015 - 31/10/2015	Hiroshi Motokawa Tadashi Yoshida

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Sinclair	Geoff	Additional Energy Limited	29/10/2015-31/10/2015	CME Activities and management system	Hiroshi Motokawa / Tadashi Yoshida
2.	Bhata	Anil	Additional Energy Limited	29/10/2015-31/10/2015	CME Activities and management system	Hiroshi Motokawa / Tadashi Yoshida
3.	Shumbaya onda	Tendai	AE-AMD	29/10/2015-31/10/2015	CPA Implementation and management system	Hiroshi Motokawa / Tadashi Yoshida
4.	Lowings	Daniel	Bio Thermal Energy Ltd., O&M Project Manager	29/10/2015-31/10/2015	CPA Implementation and management system	Hiroshi Motokawa / Tadashi Yoshida
5.	Kok	Andre	Juwi Renewable Energies, O&M Support Manager	29/10/2015-31/10/2015	CPA Implementation and management system	Hiroshi Motokawa / Tadashi Yoshida
6.	Kordom	John	Blyss-Tech, Technician	29/10/2015-31/10/2015	CPA Implementation and management system	Hiroshi Motokawa / Tadashi Yoshida
7.	Schultz	Arno	Sunpower, PV Technician	29/10/2015-31/10/2015	CPA Implementation and management system	Hiroshi Motokawa / Tadashi Yoshida

C.4. Sampling approach

As the verification team verified all electricity data through cross-checking with the Check meter's data, SCADA daily data and invoices, a sampling approach was not employed. The following monitoring parameters measured by the main meter were cross-checked:

- $EG_{BL,y}$: Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh/y)

As a result of cross-checking the monthly data in the MR and ER calculation spreadsheet with their SCADA daily data, some errors were identified as mentioned in Appendix 4 of this report. These data were appropriately corrected by the PPs.

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

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
General			
Compliance of the monitoring report with the monitoring report form	-	-	-
Remaining forward action requests from validation and/or previous verification	-	-	-
Specific-case CPA(s) considered for verification and covered in this report	-	-	-
Programme of activities			
Compliance of the programme implementation with the registered PoA-DD	-	-	-
Implementation and operation of the management system	-	-	-

Post-registration changes			
• Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline	-	-	-
• Corrections	-	-	-
• Inclusion of a monitoring plan in a registered PoA-DD (including its generic CPA-DD(s))	-	-	-
• Permanent changes to the monitoring plan as described in the registered PoA-DD, applied methodology, or applied standardized baseline	-	-	-
• Changes to the programme design of the registered PoA-DD (including corresponding changes to project design of the generic CPA-DD(s)) and updates to the eligibility criteria for inclusion of specific-case CPAs in the PoA	-	-	-
• Types of changes specific to afforestation and reforestation activities	-	-	-
Component project activity(ies)			
Compliance of the CPA implementation with the included CPA design document	2	2	-
Post-registration changes			
• Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline	-	-	-
• Corrections	-	-	-
• Changes to the start date of the crediting period	-	-	-
• Inclusion of a monitoring plan to an included CPA-DD	-	-	-
• Permanent changes to the monitoring plan as described in the included CPA-DD, applied methodology, or applied standardized baseline	-	-	-
• Changes to the programme design of the included CPA-DD	-	-	-
• Types of changes specific to afforestation and reforestation component project activities	-	-	-
Compliance of the monitoring plan with the monitoring methodology including applicable tool and standardized baseline	-	-	-
Compliance of monitoring activities with the registered monitoring plan			
• Data and parameters fixed ex ante or at renewal of crediting period	1	1	-
• Data and parameters monitored	-	-	-
• Implementation of sampling plan	-	-	-
Compliance with the calibration frequency requirements for measuring instruments	-	-	-
Assessment of data and calculation of emission reductions or net removals			
• Calculation of baseline GHG emissions or baseline net GHG removals by sinks	1	3	-
• Calculation of project GHG emissions or actual net GHG removals by sinks	-	-	-
• Calculation of leakage GHG emissions	-	-	-
• Summary of calculation of GHG emission reductions or net GHG removals by sinks	-	-	-
• Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates in	-	1	-

included specific-case CPA			
• Remarks on difference from estimated value in registered PDD	1	-	-
Others (please specify)	-	-	-
Total	**5**	**7**	**0**

SECTION D. Internal quality control

The following are implemented in line with the procedure for internal quality control prescribed by JQA CDM Quality Manual and relevant procedures.
First, the verification team establishes the draft verification report including draft conclusion and submits the draft verification report and other documents needed for the review to the technical reviewer. The reviewer verifies appropriateness of the draft conclusion on the verification of the project activity and its procedures. Then the reviewer reports the review results to the verification team. The verification team responds to the reviewer's comments and revises the documents, if necessary. The team leader of the verification team reports the review result to the Senior Executive of JQA. Finally, the Senior Executive approves the emission reductions achieved by the CDM Project and issues the Verification and Certification Report.

SECTION E. Verification opinion

JQA has performed the 1st periodic verification of emission reductions achieved by the registered CDM PoA project "South Africa Renewable Energy Programme (SA-REP)" (Ref. 7570; registered on 09/10/2012) for the period of 05/10/2013 - 30/06/2015, under the contract with Additional Energy Limited which is the CME for the PoA, as reported in the Monitoring Report (ver. 02) dated 08/12/2015. The CME is responsible for the collection of data in accordance with the monitoring plan and for the reporting of GHG emission reductions from the implementation of the registered PoA.

The following three CPAs are included under the registered CDM PoA

- CPA7570-0001 SA-REP Greefspan 11.029 MW Solar PV Project
- CPA7570-0002 SA-REP Aries 10 MW Solar PV Project
- CPA7570-0003 SA-REP Konkoonsies 10 MW Solar PV Project

All CPAs listed above were implemented during the 1st monitoring period and the emission reductions achieved by the implementation of these three CPAs were claimed for this monitoring period. The implementation period of each CPA is as follows:

- CPA7570-0001: 01/06/2014 – 30/06/2015
- CPA7570-0002: 01/12/2013 – 30/06/2015
- CPA7570-0003: 01/12/2013 – 30/06/2015

JQA has performed the verification of the above three CPAs under the registered PoA as per VVS to check whether the CDM Project is implemented and operated in accordance with the registered PDD, its monitoring plan, the applied monitoring methodologies/tools and decisions/rulings by Kyoto Protocol, UNFCCC, CMP and CDM-EB. The verification process includes the desk review of the relevant documents, on-site assessment including data cross-check and site inspection, resolution of CARs and CLs, preparation of Draft Verification Report, internal quality control and the final approval of Verification and Certification Report.

JQA confirms that the monitoring report is completed using the latest version 01.0 of monitoring report form which is valid at the time of making publicly available on the UNFCCC website, and the evidence and information provided by the CME are sufficient and reliable.

During the course of verification and on site visit, the electricity data in the MR and ER calculation spreadsheet were cross-checked with the SCADA daily data and invoices. The procedures for data monitoring, recording, aggregation and calculation were also verified.

Through the resolution of seven CARs and five CLs raised in this verification, JQA confirms that the three CPAs under the registered PoA were correctly implemented and operated in accordance with the applied methodology, monitoring plan and the registered/ included CPA-DDs.

In conclusion, JQA has confirmed that the three CPAs under the registered PoA result in the emission reductions of 91,689 tCO_2e during the 1st monitoring period from 05/10/2013 to 30/06/2015.

SECTION F. Certification statement

JQA has performed the 1st periodic verification of the registered PoA "South Africa Renewable Energy Programme (SA-REP)" (Ref. 7570). The PoA involves electricity generation by the utilization of small hydro, wind, solar photovoltaic and geothermal energy to displace grid electricity which is mainly supplied by centralised coal-fired power stations.

The verification was performed for the three CPAs under the registered PoA to identify the compliance of the component projects with implementation and monitoring requirements. The verification was based on the registered PoA-DD, CPA--DDs and the monitoring report for this project which are provided by the CME, Additional Energy Limited, and conducted through the desk review of relevant documents, on-site inspection and interview with the CME and CPA developers to check whether the provisions of the monitoring methodology and the monitoring plan were consistently and appropriately applied and the evidences supporting the reported data were appropriately collected.

JQA has confirmed that the three CPAs using solar PV technology under the registered PoA are appropriately implemented and operated in accordance with the monitoring methodology AMS-I.D (ver.17) and the monitoring plan of each CPA under the registered PoA. JQA hereby certifies that the emission reductions achieved in the 1st monitoring period from 05/10/2013 to 30/06/2015 by the registered CDM PoA "South Africa Renewable Energy Programme (SA-REP)" are 91,689 tCO_2e and are free from material errors, omissions or misstatements with a reasonable level of assurance. The GHG emission reductions stated in the revised MR (ver. 02) and the revised ER calculation spreadsheet (ver. 02) are transparently and correctly calculated throughout the 1st monitoring period by applying the methodology/ tools.

The amounts of emission reductions achieved by each CPA for this monitoring period are as follows:

CPAs (included in this request)	Emission reductions in this monitoring period	
	Up to 31/12/2012	01/01/2013 onwards
CPA 7570 – 0001	--	27,711
CPA 7570 – 0002	--	31,541
CPA 7570 – 0003	--	32,437
Total	--	**91,689**

SECTION G. Verification findings - General

G.1. Compliance of the monitoring report with the monitoring report form

Means of verification	It is confirmed through the review of relevant documents that the monitoring report is completed using the valid version (ver. 01.0) of the CDM-PoA-MR-FORM at the

	time of making publicly available on the UNFCCC website, and in accordance with the instructions for filling out the monitoring report form.
Findings	N/A
Conclusion	JQA concludes that the MR is completed using the valid version of monitoring report form. Therefore, this section is closed.

G.2. Remaining forward action requests from validation and/or previous verification

FAR was raised during the validation regarding the monitoring manual and training as follows:

FAR-1: The monitoring manual shall be issued and its training shall be implemented before the start of verification stage.

JQA confirmed through the review of the relevant documents and the interview with the CME/CPA developer that the CME issued the monitoring manual "Monitoring Guidelines for CPA Developers" on 05/11/2013 before the start date of the commercial operation for each CPA, and implemented the training appropriately on 06/08/2014 for CPA 7570-0001 and 15/11/2013 for CPA 7570-0002 and CPA 7570-0003. Therefore, FAR-1 was closed.

G.3. Specific-case CPA(s) considered for verification and covered in this report

Reference number of the specific-case CPA included in the PoA as of the end of this monitoring period	Is the specific-case CPA considered for this verification? (yes/no)	Version number of the registered PoA-DD to which the specific-case CPA complies with	Confirmation that a request for issuance including the specific-case CPA has been published for the previous monitoring period (Y/N)
CPA 7570-0001	Yes	Version 07	No
CPA 7570-0002	Yes	Version 07	No
CPA 7570-0003	Yes	Version 07	No

SECTION H. Verification findings – Programme of activities

H.1. Compliance of the programme implementation with the registered programme design document

Means of verification	The purpose of the registered PoA is to generate electricity through the utilization of small hydro, wind, solar PV and geothermal energy and to reduce the GHG emission reductions by displacing the electricity from the grid which is mainly supplied by the operation of coal-fired power stations. The boundary of the PoA is defined as the geographical area where small-scale CPAs included in the PoA are implemented, *i.e*., the Republic of South Africa. Each CPA is identified uniquely with the address and GPS coordinates, which prevents incidences of double counting. The Western Cape Province has the best potential for wind energy and the Northern Cape Province has the best solar resource in the country. All power generated by the projects under the registered PoA is fed into the national grid and hence displaces the electricity generated from centralized coal-fired power stations. According to the methodology AMS-I.D applied, a typical CPA consists of small-scale hydro, wind, solar PV or geothermal powered facilities with the installed capacities smaller than or equal to 15 MW.

	It is confirmed through the review of the relevant documents, on-site inspection and the interview with the CPA developer that CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003 implemented under the registered PoA are assigned into small-scale power generation projects using solar energy which are located in the Northern Cape Provinces of South Africa, and the capacities of solar PV plants installed are in a range of 10 – 11 MW. These findings meet the limit of 15 MW installed output for Type I small-scale renewable energy projects and are also in accordance with the description in the registered PoA. Through the review of technical specification of facilities (such as PV module, inverter and electricity meter) provided by the CME/CPA developer and the physical on-site inspection on 29-31/10//2015, it was confirmed that all physical features (technology, project equipment, and monitoring and metering equipment) of the CPAs under the registered PoA were in place and that the CME/CPA developer had operated and implemented as planned in the registered PoA. As per the eligibility criteria (No.4) for the inclusion of a CPA in South Africa Renewable Energy Programme (SA-REP) PoA, the start date of each CPA shall be after 27/02/2012, which is the start date of the validation of the PoA. It is confirmed through the review of the relevant documents and the interview with the CPA developer that the start dates of three CPAs implemented under the registered PoA are all after 27/02/2012. The start date of each CPA is the date on which the contract is signed for the construction services, in accordance with the Glossary of CDM terms. The verification covers the 1st monitoring period from 05/10/2013 to 30/06/2015. Through the 1st verification of the project activity, it is confirmed that any deviations or actual changes are not identified in the implementation or operation of the registered PoA-DD. Through the review of the electricity data and the interview with the CME/CPA developer, it is confirmed that each CPA and its monitoring activity are implemented and operated in accordance with the registered PoA, the registered monitoring plan and the monitoring methodology/ tools. Namely, the quantity of electricity exported/ imported by the project activity is continuously measured with main and check electricity meters and daily recorded by SCADA system. The monthly electricity data measured is cross-checked with invoices issued by the grid company. The parameter of $EF_{CO2,grid,y}$ (0.9801 tCO_2/MWh) is provided as a default value from Standardized baseline ASB0001 “Grid emission factor for the Southern African power pool (ver. 01.0), which is different from that (0.9464 tCO_2/MWh) stated in each CPA under the registered PoA where this parameter was determined using “Tool to calculate the emission factor for an electricity system”. It is confirmed through the interview with the CME and e-mail correspondence to the DNA of South Africa that no legal restrictions for international electricity exchange between any of the SAPP member countries took effect after the adoption of the standardized baseline ASB0001. Therefore, the default value (0.9801 tCO_2/MWh) from ASB0001 as emission factor of the grid is applicable to each CPA submitted for request for issuance after 31/05/2013. The GHG emission reductions are transparently and correctly calculated based on the methodology AMS-I.D (ver. 17) and the registered PoA. JQA determines that the claimed emission reductions of 91,689 tCO_2e in the1st monitoring period are free from material errors, omissions or misstatements with a reasonable level of assurance. There is small increase in the actual GHG emission reductions achieved by the three CPAs in the1st monitoring period, compared to the estimates in the registered CPAs, due to the change of the CO_2 emission factor of the grid from 0.9464 tCO_2/MWh to 0.9801 tCO_2/MWh and slightly higher operation availability of the PV plant.

Findings	N/A
Conclusion	JQA concludes that the three CPAs under the registered PoA have been operated and implemented in accordance with the description contained in the registered PoA. Thus, this section is closed.

H.2. Implementation and operation of the management system

Means of verification	Additional Energy Limited is the Coordinating/Managing Entity (CME) of South Africa Renewable Energy Programme (SA-REP) PoA project. Previously, Standard Bank Plc was the CME of the PoA. Additional Energy Limited is was approved as the CME by the UNFCCC on 08/12/2015 and is responsible for overseeing the overall implementation of the PoA. As a CME, Additional Energy Limited has the following responsibilities: - Coordination of the monitoring activities of CPAs included under the PoA, - Maintenance of all monitoring reports of all CPAs in accordance with record keeping systems outlined in the CDM PoA-DD, - Provision of all monitoring reports to the DOE, and - Submission of requests for issuance as agreed with project participants. In accordance with the CPA Participation Agreement between CME and CPA developer, CPA developer is initially required to provide basic information on location of the CPA, installed capacity of the power plant, technical specification of PV module and inverter, details of main and check electricity meters. It is confirmed through the review of relevant documents and the interview with the CME/CPA developer that these information are compiled in “CME Database Sheet”. CPA developer is further requested to monitor electricity data such as $EG_{BL,y}$ and to send them electronically to the CME on a monthly basis. The data is recorded in an Excel spreadsheet entitled “CPA specific data recording sheet” which is provided by the CME to CPA developer. The QA/QC of monitored data is performed by CPA developer according to “Procedure for PoA Data Quality Check” which is provided by the CME. It is confirmed through the review of relevant documents and the interview with the CME/CPA developer that the role and responsibilities of the CME/ CPA developer and data information flow are stipulated in “Monitoring Guidelines for CPA Developers” for the registered PoA, which is prepared by the CME on 19/11/2013, and that each CPA is appropriately monitored and managed in accordance with the “Monitoring Guideline” and “Procedure for PoA Data Quality Check”.
Findings	N/A
Conclusion	JQA concludes that the three CPAs under the registered PoA have been appropriately monitored and managed in accordance with the “Monitoring Guideline” and “Procedure for PoA Data Quality Check” which are provided by the CME. Thus, this section is closed.

H.3. Post-registration changes

H.3.1. Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline

Not applicable

H.3.2. Corrections

Not applicable

H.3.3. Inclusion of a monitoring plan in a registered PoA-DD (including its generic CPA-DD(s))

Not applicable

H.3.4. Permanent changes to the monitoring plan as described in the registered PoA-DD, applied methodology, or applied standardized baseline

Not applicable

H.3.5. Changes to the programme design of the registered PoA-DD (including corresponding changes to project design of the generic CPA-DD(s)) and updates to the eligibility criteria for inclusion of specific-case CPAs in the PoA

Not applicable

H.3.6. Types of changes specific to afforestation and reforestation activities

Not applicable

SECTION I. Verification findings – Component project activity(ies)

I.1. Compliance of the CPA implementation with the included CPA design document

Means of verification

There are three specific CPAs (7570-0001, 7570-0002 and 7570-0003) included in the registered PoA, which are all grouped into the small-scale photovoltaic (PV) projects using solar energy, at the end of the current monitoring period. These three CPAs are implemented and operated in the 1st monitoring period as follows:

CME	Additional Energy Limited
Title of the PoA	South Africa Renewable Energy Programme (SA-REP)
UNFCCC registration No.	7570
Applied methodology	AMS-I.D (ver. 17)
Start date of the PoA	27/02/2012

Title of the CPA	SA-REP- Greefspan 11.029MW Solar PV Project
CPA reference No.	7570-0001
Installed capacity	11.029 MWp
Date of inclusion	09/10/2012
CPA start date	01/01/2013
Start date of operation	01/06/2014
CPA developer	AE-AMD Independent Power Producer 1 (Pty) Ltd.
Project scale	Small-scale
Location of the CPA	Douglass, Northern Cape province, South Africa
GPS coordinates	S29°23'9.24-42.12" E23°18'18.29-58.41"
CPA crediting period	01/06/2014 – 31/05/2021 (Renewable)
Monitoring period of CPA	01/06/2014 – 30/06/2015

Title of the CPA	SA-REP- Aries 10 MW Solar PV Project
CPA reference No.	7570-0002
Installed capacity	10 MWp
Date of inclusion	28/02/2013

CPA start date	05/11/2012
Start date of operation	01/12/2013
CPA developer	Sevenstones 159 (Pty) Ltd.
Project scale	Small-scale
Location of the CPA	Kenhardt, Northern Cape province, South Africa
GPS coordinates	S29°29'41.26-53.22" E20°46'55.56-47'17.88"
CPA crediting period	05/10/2013 – 04/10/2020 (Renewable)
Monitoring period of CPA	01/12/2013 – 30/06/2015

Title of the CPA	SA-REP-Konkoonsies 10 MW Solar PV Project
CPA reference No.	7570-0003
Installed capacity	10 MWp
Date of inclusion	28/02/2013
CPA start date	05/11/2012
Start date of operation	01/12/2013
CPA developer	Limarco 77 (Pty) Ltd.
Project scale	Small-scale
Location of the CPA	Pofadder, Northern Cape province, South Africa
GPS coordinates	S28°53'13.57-27.15" E19°33'8.18-30.35"
CPA crediting period	05/10/2013 – 04/10/2020 (Renewable)
Monitoring period of CPA	01/12/2013 – 30/06/2015

Three CPA projects implemented under the registered PoA are located in the Northern Cape provinces of South Africa and their installed capacities are in a range of 10 – 11 MWp. The PV generation system comprises of solar PV module, DC/AC inverter, 22kV/132kV transformer, electricity meters, SCADA and Communications system and grid substation. The electricity consumed for the office and auxiliary equipment is separately imported from the grid through the back-up line. All electricity generated by the projects is fed to the national grid of South Africa - Eskom. Exported/imported electricity are continuously measured by the main/check electricity meters and continuously recorded through the SCADA system in an Excel spreadsheet entitled "CPA specific data recording sheet" provided by the CME. The electricity data aggregated on a monthly basis is reported to the CME. Each CPA project consists of only one site and is not with phased implementation.

Through the review of technical specification of facilities provided by the CME/CPA developer and the physical on-site inspection on 29-31/10/2015, it is confirmed that all physical features (technology, project equipment, and monitoring and metering equipment) of the three CPAs under the registered PoA were in place and that the PPs had operated and implemented as planned in the registered CPA-DD. The start dates of the three CPAs were all after 27/02/2012 which is the start date of the PoA, being the start date of the validation of the PoA.

The verification covers the 1st monitoring period from 05/10/2013 to 30/06/2015, which is within the 1st renewable crediting period. Through the 1st verification of the project activity, it is confirmed that two corrections and one change to project design of the specific-case CPA(s) are identified in the implementation and operation of the registered CPAs.

It is confirmed that the three project activities and their monitoring activities are implemented and operated in accordance with the CPAs under the registered PoA, the registered monitoring plan and the monitoring methodology/ tools.

The GHG emission reductions are transparently and correctly calculated based on the methodology AMS-I.D (ver.17) and the CPAs under the registered PoA. JQA determines that the claimed emission reductions of 91,689 tCO_2e in the 1st monitoring period are free from material errors, omissions or misstatements with a reasonable level of assurance.

Findings	- Regarding the technical information of the inverter in Section D.1, CAR 02 was

	raised and resolved as described in Table 3 of Appendix 4. - Regarding the start date of feeding electricity to the grid in Section D.1, CAR 03 was raised and resolved as described in Table 3 of Appendix 4. - Regarding the description of the registered PoA in Section A.1, CL 01 was raised and resolved as described in Table 2 of Appendix 4. - Regarding the relevant dates of the CPA in Section D.1, CL 02 was raised and resolved as described in Table 2 of Appendix 4.
Conclusion	JQA concludes that the three CPAs under the registered PoA have been implemented and operated in accordance with the description contained in the registered PoA. Thus, this section is closed.

I.2. Post-registration changes

I.2.1. Temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline

Not applicable

I.2.2. Corrections

The models of PV module and inverter for CPA 7570-0002 and CPA 7570-0003 are not consistent with those of the actual facilities installed at the project sites. These inconsistencies have been corrected as follows and reported in Section D.1 of the MR (ver. 02).

CPA 7570-0002 Model of PV module and inverter

	Initial MR (ver. 01)	Revised MR (ver. 02)
PV Module	BYD 250P6-30	BYD 250P6C-30
Inverter	Sunny Central 630CP	Sunny Central 630CP XT

CPA 7570-0003 Model of PV module and inverter

	Initial MR (ver. 01)	Revised MR (ver. 02)
PV Module	BYD 250P6-30	BYD 250P6C-30
Inverter	Sunny Central 630CP	Sunny Central 630CP XT

As these corrections do not affect the design of the PoA, prior approval is not required as per the paragraph 1 in Appendix 1 of the PS (ver. 09.0).

I.2.3. Changes to the start date of the crediting period

Not applicable

I.2.4. Inclusion of a monitoring plan to an included CPA-DD

Not applicable

I.2.5. Permanent changes to the monitoring plan as described in the included CPA-DD, applied methodology, or applied standardized baseline

Not applicable

I.2.6. Changes to the programme design of the included CPA-DD

The description of inverter for CPA 7570-0001 is not consistent with the specification of the actual one installed at the project sites. This inconsistency has been corrected as follows and reported in Section D.1 of the MR (ver. 02).

CPA 7570-0001 Specification of inverter

	Initial MR (ver. 01)	Revised MR (ver. 02)
Manufacturer	SMA	KACO
Model	15000TL	Powador
Type	String	Powador 39.0 TL 3-M-INT

According to the Guidelines on the demonstration of additionality of small-scale project activities (ver. 09.0, EB 68, Annex 27), solar PV technology is included in the positive list of grid-connected renewable electricity generation technologies. Therefore, as per the paragraph 7 in Appendix 1 of the PS (ver. 09.0), prior approval for the actual change to the programme design of a registered PoA is not required for CPA 7570-0001 under the PoA using a positive list.

I.2.7. Types of changes specific to afforestation and reforestation component project activities

Not applicable

I.3. Compliance of monitoring plan with the monitoring methodology including applicable tool and standardized baseline

Means of verification	It is confirmed through the desk review of relevant documents that the monitoring plan in the registered CPA-DDs contains all monitoring parameters required by AMS-I.D (ver. 17), *i.e.*, $EG_{BL,y}$, which is used to determine emission reductions. The monitoring frequency and recording of electricity data are also specified by the methodology AMS-I.D, *i.e.*, Continuous monitoring, hourly measurement and at least monthly recording.
Findings	N/A
Conclusion	JQA concludes that the monitoring plan of the registered CPA-DDs fully complies with the methodology AMS-I.D (ver. 17) applied to the CDM Project. Thus, this section is closed.

I.4. Compliance of monitoring activities with the registered monitoring plan

I.4.1. Data and parameters fixed ex ante or at renewal of crediting period

Means of verification	It is confirmed through the review of the relevant documents that the following data and parameters fixed *ex-ante* are listed in Section G.1 of the MR, and that they are consistent with the registered CPA-DDs as follows: - $EF_{CO2,\ grid,y}$: Combined margin CO_2 emission factor for grid connected power generation in year y (0.9801 tCO_2/MWh) The parameter of $EF_{CO2,\ grid,y}$ (0.9801 tCO_2/MWh) is provided as a default value from Standardized baseline ASB0001 "Grid emission factor for the Southern African power pool (ver. 01.0), which is different from that (0.9464 tCO_2/MWh) stated in each CPA under the registered PoA where this parameter was determined using "Tool to calculate the emission factor for an electricity system" at the time of validation.

	According to Applicability conditions in Section 3.2 of Standardized baseline ASB0001, this standardized baseline is derived from the tool "Tool to calculate the emission factor for an electricity system" (ver. 2.2.1) and is applicable to the CDM projects which requires to determine CO_2 emission factor for the project electricity system through the application of the "Tool" in The Republic of South Africa. The latest value of $EF_{CO2, grid,y}$ (0.9801 tCO_2/MWh) provided by the paragraph 15 of standardized baseline is valid for three years from 31/05/2013 unless no legal restrictions for international electricity exchange between any of the SAPP member countries take effect after the adoption of this standardized baseline (as per paragraphs 11 and 12). It is confirmed through the interview with the CME and e-mail correspondence to the DNA of South Africa that no legal restrictions for international electricity exchange between any of the SAPP member countries took effect after the adoption of the standardized baseline ASB0001. Therefore, the default value from ASB0001 as emission factor of the grid (0.9801 tCO_2/ MWh) is applicable to each CPA under the registered PoA.
Findings	- Regarding the combined margin CO_2 emission factor of the grid in Section G.1, CL 05 was raised and resolved as described in Table 2 of Appendix 4.
Conclusion	JQA concludes that data and parameter fixed *ex-ante* comply with the Standardized baseline ASB0001. Therefore, this section is closed.

I.4.2. Data and parameters monitored

Means of verification	It is confirmed through the review of the relevant documents, on-site inspection and the interview with the CME/CPA developer that the following data and parameters monitored are listed in Section G.2 of the MR, and that they are consistent with the monitoring plan in the registered CPA-DD as follows: (a) The monitoring plan including the measurement of electricity generated and consumed is properly implemented by the CPA developer, (b) All parameters have been monitored as follows: (i) Project emission parameters; No parameters are included as fossil fuels are not used on-site. (ii) Baseline emission parameters; - $EG_{BL,y}$: Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh) (iii) Leakage parameters: No leakage emissions are considered as per the methodology AMS-I.D (ver. 17). (iv) Management and operational system: The roles and responsibilities of the CME and CPA developer, monitoring parameters and data flow are clearly described in Section F of the MR, which is fully consistent with the monitoring plan in the registered CPA-DDs. The electricity data aggregated on a monthly basis is reported to the CME who reviews and records the data in the CME database. Then, the CME calculates emission reductions and prepares Monitoring Report for the CPAs. The CME provides "Monitoring Guideline for CPA Developers" and "Procedure for PoA Data Quality Check" to the CPA developer, on how the monitoring should be conducted and data to be collected with regards to the calculation of emission reductions. Furthermore, the training of the CDM staffs for the operation/ maintenance of the plant and data monitoring was conducted during the 1st monitoring period (15/11/2013 and 06/08/2014). It is confirmed through the review of the relevant documents and the interview with the CME/CPA developer that the management and operational system are well organized to implement the monitoring activity. (C) The measuring equipment (main/check electricity meters) used for monitoring is installed / controlled / calibrated in accordance with the monitoring plan and national standards (NRS 057: 2009). It is confirmed through the on-site inspection that the manufacturer, type, serial number, accuracy class of these meters are fully

	consistent with those in the MR. The main and check meters are bidirectional type which can measure both export and import electricity. The three CPAs separately import electricity from the grid through the backup line for the operation of office and auxiliary equipment. (d) Electricity data are continuously measured by the main and check meters installed at the grid transformer substation, and daily recorded and then monthly aggregated, in accordance with the monitoring plan in the registered CPA-DDs. The records of monitored data are cross-checked with the invoices issued by the grid company Eskom. The electricity consumed for the operation of office and auxiliary equipment which is imported through the back-up line is also continuously measured and manually recorded by the CPA developer every day. (e) The calibration of electricity meters is conducted by each CPA developer every five years according to the national standard (NRS 057: 2009).
Findings	- Regarding the lack of information on electricity meter, CAR 01 was raised and resolved as described in Table 3 of Appendix 4.
Conclusion	JQA concludes that the monitoring activities including QA/QC procedures have been appropriately carried out in accordance with the registered monitoring plan and the methodology/ tools applied. Therefore, this section is closed.

I.4.3. Implementation of sampling plan

Means of verification	Each CPA monitors electricity data individually. Therefore, the sampling plan is not required for the CPAs. Thus, this item is not applicable.
Findings	N/A
Conclusion	N/A

I.5. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	The applied methodology AMS-I.D (ver. 17) does not specify any requirements for the calibration frequency of measuring equipment, but "Monitoring Guideline for CPA Developers" prepared by the CME states that CPA developer is responsible for calibration of the monitoring equipment, *i.e.*, electricity meters, according to National standard NRS 057: 2009 or as per the meter manufacturer's guidelines. According to NRS 057: 2009, the calibration frequency of electricity meter with a load level of 10 MVA to <100 MVA is five years. The calibration certificates of electricity meters and the certificate of calibration entity are provided by the CME/CPA developers. It is confirmed that the electricity meters are calibrated by the authorized entity (Power Meter Technics (Pty) Ltd., Accreditation No. 143, valid from 31/08/2010 to 31/08/2015) which is accredited by South African National Accreditation System (SANAS). It is confirmed through the review of the calibration certificates that the calibration of electricity meters is to be performed every five years according to National standard NRS 057: 2009.
Findings	N/A
Conclusion	JQA concludes that the calibration procedure and management of electricity meter is established by the CME/CPA developer according to National standard NRS 057: 2009. Therefore, this section is closed.

I.6. Assessment of data and calculation of emission reductions or net removals

I.6.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification

Trough the review of the electricity data and relevant documents, JQA has assessed the data and calculation of GHG emission reductions achieved by the three CPAs under the registered PoA.

A complete set of electricity data for the 1st monitoring period was provided by the CME/CPA developers. The monthly electricity data in the MR and the ER calculation spreadsheet, which are measured with the main meter, are cross-checked with data measured by the check meter and following data sources:

- SCADA daily data of electricity measured by the main meter
- SCADA daily data of electricity measured by the check meter
- Invoices issued by the grid company Eskom

The quantity of net electricity supplied to the grid by the solar PV plant is calculated from the difference between the measured quantities of the grid electricity export ($EG_{export,y}$) and import ($EG_{import,y}$). Since the project site separately imports electricity from the grid through the back-up line for the operation of office and auxiliary equipment, $EG_{import,y}$ equals to the sum of electricity imported from the grid through the main line ($EG_{import,main,y}$) and the back-up line ($EG_{import,auxi,y}$). Therefore, the quantity of net electricity supplied to the grid ($EG_{BL,y}$) is determined by the following equation:

$$EG_{BL,y} = EG_{export,y} - EG_{import,y}$$
$$= EG_{export,y} - (EG_{import,main,y} + EG_{import,auxi,y})$$

If the value of $EG_{export,y}$ is different among main meter, check meter and invoice , the smallest one of the three values is employed for conservativeness. Similarly, if the value of $EG_{import,main,y}$ is different among main meter and check meter, larger one is employed for conservativeness.

As per Equation (1) of AMS-I.D (ver. 17) and the registered CPA-DD, the baseline emissions from electricity generation are calculated as follows:

$$BE_y = EG_{BL,y} \times EF_{CO2,grid,y} \quad \text{---------- (1)}$$

where:

- BE_y : Baseline emissions in year y (tCO_2/y)
- $EG_{BL,y}$: Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)
- $EF_{CO2,grid,y}$: Combined margin CO_2 emission factor of the grid in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (tCO_2/MWh). For the proposed CPAs under the registered PoA, a default value (0.9801 tCO_2/MWh) from Standardized baseline ASB0001 "Grid emission factor for the Southern African power pool" (ver. 01.0) is employed as $EF_{CO2,grid,y.}$

The results of baseline emissions of the three CPAs are summarized as follows:

CPAs	$EG_{BL,y}$ (MWh)	$EF_{CO2,grid,y}$ (tCO_2/MWh)	BE_y (tCO_2e)
CPA 7570-0001	28,274	0.9801	27,711
CPA 7570-0002	32,182		31,541
CPA 7570-0003	33,096		32,437
Total	**93,552**		**91,689**

Thus, the baseline emissions for the 1st monitoring period are correctly calculated based on electricity data measured, in accordance with the formulae and methods described in the methodology AMS-I.D (ver.17) and the registered CPA-DDs. The

	baseline GHG emissions are determined to be 91,689 tCO_2e for the 1st monitoring period.
Findings	- Regarding the lack of electricity data consumed for the operation of office and auxiliary equipment in the ER calculation spreadsheet, CAR 05 was raised and resolved as described in Table 3 of Appendix 4. - Regarding the inconsistencies of monthly electricity data in the ER calculation spreadsheet, CAR 06 was raised and resolved as described in Table 3 of Appendix 4. - Regarding the correctness of calculation in the MR and the ER calculation spreadsheet, CAR 07 was raised and resolved as described in Table 3 of Appendix 4. - Regarding the correctness of the monthly electricity data in the ER calculation spreadsheet, CL 04 was raised and resolved as described in Table 2 of Appendix 4.
Conclusion	JQA concludes that the baseline GHG emissions, which are defined by AMS-I.D (ver. 17) and the registered CPA-DDs, are correctly calculated for the 1st monitoring period. Therefore, this section is closed.

I.6.2. Calculation of project GHG emissions or actual net GHG removals by sinks

Means of verification	According to the methodology AMS-I.D (ver. 17), the project emissions are zero for most renewable energy project activities except geothermal/ hydro power plants. In case where fossil fuels are used for electricity generation in the project activity, project emissions from the combustion of fossil fuels shall be accounted for. However, for the proposed CPAs under the registered PoA, electricity from the grid is used for the operation of office and auxiliary equipment and hence any fossil fuels are not used on-site. As a result, the project emissions are regarded as zero.
Findings	N/A
Conclusion	JQA concludes that the project GHG emissions are determined as zero (PE_y=0) for the 1st monitoring period, in accordance with AMS-I.D (ver. 17). Therefore, this section is closed.

I.6.3. Calculation of leakage GHG emissions

Means of verification	As per the methodology AMS-I.D (ver. 17), no leakage emissions are considered as the energy generating equipment is not transferred from another activity, *i.e.*, reenfield projects.
Findings	N/A
Conclusion	JQA concludes that the leakage emissions are regarded as zero for the 1st monitoring period as per AMS-I.D. Therefore, this section is closed.

I.6.4. Summary of calculation of GHG emission reductions or net GHG removals by sinks

Means of verification	According to the paragraph 23 of AMS-I.D (ver. 17), the GHG emission reductions are calculated by the following equation: $ER_y = BE_y – PE_y – LE_y$ $= 91,689 – 0 – 0$ $= 91,689\ tCO_2e$ Where: - ER_y : Emission reductions in year y (tCO_2e) - BE_y : Baseline emissions in year y (tCO_2e) - PE_y : Project emissions in year y (tCO_2e) - LE_y : Leakage emissions in year y (tCO_2e) Thus, the GHG emission reductions achieved by the project activity during the 1st monitoring period are determined as 91,689 tCO_2e.
Findings	N/A

Conclusion	JQA concludes that the GHG emissions reductions, which are defined by AMS-I.D (ver. 17) and the registered CPA-DDs, are correctly calculated for the 1st monitoring period. Therefore, this section is closed.

Specific-case CPA reference number	Baseline emissions or baseline net GHG removals by sinks (tCO_2e)	Project emissions or actual net GHG removals by sinks (tCO_2e)	Leakage (tCO_2e)	GHG emission reductions or net GHG removals by sinks (tCO_2e)		
				Results achieved in the period up to 31 December 2012	Results achieved in the period from 1 January 2013 onwards	Results achieved in the entire monitoring period
CPA 7570-0001	27,711	0	0	0	27,711	27,711
CPA 7570-0002	31,541	0	0	0	31,541	31,541
CPA 7570-0003	32,437	0	0	0	32,437	32,437
Total	**91,689**	**0**	**0**	**0**	**91,689**	**91,689**

I.6.5. Comparison of actual GHG emission reductions or net GHG removals by sinks with estimates in included specific-case CPA

Means of verification	The total value estimated in *ex-ante* calculation of the three registered CPA-DDs for the 1st monitoring period is 89,996 tCO_2. The actual GHG emission reductions achieved by the three CPAs during the 1st monitoring period from 05/10/2013 to 30/06/2015 are 91,689 tCO_2e. As a result, the value of actual emission reductions is 101.9% (=91,689 tCO_2e /89,996 tCO_2e x 100%) of the estimate in the registered CPA-DDs.
Findings	- Regarding the calculation of estimate during the monitoring period in Section H.5, CAR 04 was raised and resolved as described in Table 3 of Appendix 4.
Conclusion	JQA has confirmed that the value of actual emission reductions achieved in the 1st monitoring period is higher by 1.9% than the total estimates in the three registered CPA-DDs. Therefore, this section is closed.

Specific-case CPA reference number	Value estimated in ex ante calculation in the included specific-case CPA-DD(s)	Actual values achieved by the specific-case CPA(s) during this monitoring period
CPA 7570-0001	27,185	27,711
CPA 7570-0002	31,190	31,541
CPA 7570-0003	31,621	32,437
Total	**89,996**	**91,689**

I.6.6. Remarks on difference from estimated value in registered PDD

Means of verification	The GHG emission reductions of CPA 7570--0001, CPA 7570--0002 and CPA 7570--0003 are higher by 1.9%, 1.1% and 2.6% than their estimates, respectively, and the total increase in the actual GHG emission reductions achieved by the implementation of the three CPA-DDs is 1.9 % (= (91,689 – 89,996) tCO_2e /89,996 tCO_2e x 100%), compared to the total estimates in the CPA-DDs. The main reason for the increase is due to the change of the grid emission factor from 0.9464tCO_2/MWh to 0.9801tCO_2/MWh, *i.e.*, the increase of 3.56 %.

	Furthermore, the slight increase in the plant operation availability would also contribute to the increased emission reductions.
Findings	- Regarding the increase in the actual emission reductions in Section H.6, CL 03 was raised and resolved as described in Table 2 of Appendix 4.
Conclusion	JQA has confirmed that the value of actual emission reductions achieved during the 1st monitoring period is higher by 1.9 % than the total estimates in the three registered CPA-DDs. This increase is mainly due to the change of the grid emission factor and the slight increase in the plant operation availability and it is considered reasonable. Therefore, this section is closed.

Appendix 1. Abbreviations

Abbreviations	Full texts
AC/DC	Alternative current/Direct current
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM PS	CDM Project Standard
CDM VVS	CDM Validation and Verification Standard
CER	Certified Emission Reduction
CL	Clarification Request
CME	Coordinating/ Managing Entity
COP/MOP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
CPA	Component Project Activity
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	CDM Executive Board
EI	External Individuals
ER	Emission Reductions
FAR	Forward Action Request
GHG	Greenhouse Gas
GPS	Global Positioning System
GSP	Global Stakeholder Process
IPCC	Intergovernmental Panel on Climate Change
IR	Internal Resource
JQA	Japan Quality Assurance Organization
KP	Kyoto Protocol
MR	Monitoring Report
MP	Monitoring Plan
OA	On-site Assessment
PDD	Project Design Document
PoA	Programme of Activities
PPs	Project Participants
PRC	Post registration changes
PV	Photovoltaic
QA/QC	Quality Assurance / Quality Control
SA-REP	South Africa Renewable Energy Programme
SCADA	Supervisory Control And Data Acquisition
SV	Site visit
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change

Appendix 2. Competence of team members and technical

Statement of competence

Name: Mr. Hiroshi Motokawa

Qualified and authorized by Japan Quality Assurance Organization.

Function	Date of qualification
Validator	2014/12/22
Verifier	2014/12/22
Team leader	2014/12/22

Technical area within sectoral scopes	Date of qualification
TA 1.1. Thermal energy generation	2014/12/22
TA 1.2. Renewables	2014/12/22
TA 3.1. Energy demand	2014/12/22
TA 4.1. Cement and lime production	2014/12/22
TA 4.6. Other manufacturing industries	2014/12/22
TA 13.1. Solid waste and wastewater	2014/12/22

E-01-30

Statement of competence

Name: Dr. Tadashi Yoshida

Qualified and authorized by Japan Quality Assurance Organization.

Function	Date of qualification
Validator	2014/12/22
Verifier	2014/12/22
Team leader	2014/12/22

Technical area within sectoral scopes	Date of qualification
TA 1.1. Thermal energy generation	2014/12/22
TA 1.2. Renewables	2014/12/22
TA 3.1. Energy demand	2014/12/22
TA 4.6. Other manufacturing industries	2014/12/22
TA 5.1. Chemical industry	2014/12/22
TA 10.1. Fugitive emissions from oil and gas	2014/12/22
TA 13.1. Solid waste and wastewater	2014/12/22

E-01-30

E-01-30

Statement of competence

Name: Mr. Koichiro Tanabe

Qualified and authorized by Japan Quality Assurance Organization.

Function	Date of qualification
Validator	-
Verifier	2014/12/22
Team leader	2015/3/24

Technical area within sectoral scopes	Date of qualification
TA 1.1. Thermal energy generation	2014/12/22
TA 1.2. Renewables	2014/12/22
TA 3.1. Energy demand	2014/12/22
TA 4.6. Other manufacturing industries	2014/12/22
TA 5.1. Chemical industry	2014/12/22
TA 10.1. Fugitive emissions from oil and gas	2014/12/22
TA 13.1. Solid waste and wastewater	2014/12/22

E-01-30

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	Additional Energy Limited	Monitoring Report, ver. 01 and 02	08/12/2015	CME
2	Additional Energy Limited	ER calculation spreadsheet, ver. 01 and 02	08/12/2015	CME
3	Standard Bank Plc.	Registered PoA-DD, ver. 07	21/09/2012	Others
4	Japan Consulting Institute (JCI)	Validation Report, Report No. JCI-CDM-VAL-11/153, Rev. No. 00	26/09/2012	Others
5	Standard Bank Plc.	CPA-DD of CPA 7570-0001, ver. 06	21/09/2012	Others
6	Standard Bank Plc.	CPA-DD of CPA 7570-0002, ver. 01	20/12/2013	Others
7	Japan Consulting Institute (JCI)	Validation Report of CPA 7570-0002, Report No. JCI-CDM-VAL 505-02, Rev. No. 00	25/02/2013	Others
8	Standard Bank Plc.	CPA-DD of CPA 7570-0003, ver. 01	21/12/2012	Others
9	Japan Consulting Institute (JCI)	Validation Report of CPA 7570-0003, Report No. JCI-CDM-VAL-505-03, Rev. No. 00	25/02/2013	Others
10	UNFCCC	Monitoring report form for CDM programme of activities (ver. 01.0) including “Attachment. Instructions for filling out the monitoring report form for CDM programme of activities”	01/04/2015	Others
11	UNFCCC	AMS-I.D “Grid connected renewable electricity generation”, ver. 17	03/06/2011	Others
12	UNFCCC	ASB0001 “Standardized baseline for Grid emission factor for the Southern African power pool”, ver. 01.0	31/05/2013	Others
13	UNFCCC	Tool to calculate the emission factor for an electricity system (ver. 02.2.1)	29/09/2011	Others
14	UNFCCC	Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion (ver. 02)	02/08/2008	Others
15	UNFCCC	CDM project standard (ver. 09.0)	20/02/2015	Others
16	UNFCCC	CDM validation and verification standard (ver. 09.0)	20/02/2015	Others
17	National Energy Regulator of South Africa (NERSA)	Business licenses of CPA 7570-0001	26/04/2012	CME
18	National Energy Regulator of South Africa (NERSA)	Business licenses of CPA 7570-0002	26/04/2012	CME
19	National Energy Regulator of South Africa (NERSA)	Business licenses of CPA 7570-0003	26/04/2012	CME
20	Sunpower energy system Spain S.L./ HATCH	Layout of solar farm for CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003	--	CME
21	Eskom	Greefspan 11MWp PV Project – Independent Engineer’s Facility Completion Report	02/05/2014	CME

22	Juwi Solar ZA Construction 3 (Pty) Ltd.	EPC contract of CPA 7570-0002 and CPA 7570-0003	05/11/2012	CME
23	BYD Tenesol	Manufacturer's specification of PV module for CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003	--	CME
24	KACO Sunny Central (SMA)	Manufacturer's specification of inverter for CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003	--	CME
25	Eskom Holdings Soc Limited	Power purchase Agreement (PPA) of PV projects between CPA developer and grid company Eskom for CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003	05-06/11/2012	CME
26	Standard Bank	South Africa Renewable Energy Programme - Monitoring Guidelines for CPA Developers	19/11/2015	CME
27	CPA developer	CME Database Sheet for CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003	--	CME
28	CME	Record and text of CDM staff training for CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003	06/08/2014 15/11/2013	CME
29	CPA developer	Electricity line diagram for CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003	--	CME
30	Elster SEL Schneider Electric	Specification of electricity meter used for CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003	--	CME
31	SABS Standards Division	NRS 057:2009- South African National Standard – Code of practice for electricity metering, including calibration frequency, accuracy class and testing of metering equipment	2009	CME
32	Sanas Laboratory 143: Power Meter Technics (Pty) Ltd. / Schneider Electric / Schweitzer Engineering Lab. Inc. (SEL)	Calibration certificates of electricity meters used for CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003	Various dates for each CPA	CME
33	South African Accreditation System (SANAS)	Certificate of accreditation (143) for Power Meter Technics (Pty) Ltd.	31/08/2012	CME
34	CPA developer	SCADA daily data of main/ check meters for CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003	On-site	CME
35	CPA developer	Monthly data of electricity consumed for the operation of office and auxiliary equipment	1st monitoring period	CME
36	CPA developer	Invoices of electricity export for CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003	1st monitoring period	CME
37	CPA developer	Data of solar irradiation, plant operation availability and grid availability	1st monitoring period	CME
38	Additional Energy Limited	CME Management System	Nov 2015	CME

39	Additional Energy Limited	Copy of e-mail correspondence with the DNA of South Africa from CME	01-02/1012015	CME

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

Table 1. Remaining FAR from validation and/or previous verification

FAR ID	01	**Section no.**	B.7.2 in the PoA-DD	**Date:** 26/09/2012
Description of FAR				
The monitoring manual shall be issued and its training shall be implemented before the start of verification stage.				
CME response				**Date:** 26/09/2012
The CME issued the monitoring manual "Monitoring Guidelines for CPA Developers" on 05/11/2013 before the start date of the commercial operation for each CPA, and implemented the training appropriately on 06/08/2014 for CPA 7570-0001 and 15/11/2013 for CPA 7570-0002 and CPA 7570-0003.				
Documentation provided by the CME				
- Monitoring Guidelines for CPA Developers - Training records implemented on 06/08/2014 and 15/11/2013				
DOE assessment				**Date:** 26/09/2012
JQA confirms through the review of the relevant documents and the interview with the CME/CPA developers that the CME prepared the monitoring manual before the start of the 1st periodic verification and implemented the training for each CPA appropriately. Therefore, FAR 01 is closed.				

Table 2. CL from this verification

CL ID	01	**Section no.**	A.1	**Date:** 09/11/2015
Description of CL				
The information on the framework for the implementation of the PoA in Section A.1 is not described.				
CME response				**Date:** 08/12/2015
The framework for the implementation of the PoA and the role/responsibility of Additional Energy Limited as a CME are appropriately added in the revised MR (ver. 02). In addition, the responsibility of CPA developer implementing each CPA under the registered PoA is also described.				
Documentation provided by the CME				
- CME Management System, dated November 2015 - Monitoring Guideline for CPA Developers, dated 19/11/2013. - CME database sheet				
DOE assessment				**Date:** 08/12/2015
It is confirmed through the review of relevant documents and the interview with the CME/CPA developer that the framework for the implementation of the PoA and the role/ responsibility of Additional Energy Limited as a CME and CPA developer are appropriately added in Section A.1 of the revised MR (ver. 02). Thus, CL 01 is closed.				

CL ID	02	Section no.	D.1	Date: 09/11/2015
Description of CL				
Although the starting date of feeding the electricity into the grid is included, the relevant dates for the specific-case CPAs (*e.g*. construction, commissioning, continued operation periods, etc.) in Section D.1 are not clearly described.				
CME response				**Date:** 08/12/2015
The construction start date of each CPA is properly added in the revised MR (ver. 02).				
Documentation provided by the CME				
- Greefspan 11MWp PV Project (CPA 7570-0001) – Independent Engineer's Facility Completion Report, dated 02/05/2014 - EPC contract of CPA 7570-0002 and CPA 7570-0003, dated 05/11/2012				
DOE assessment				**Date:** 08/12/2015
It is confirmed through the review of relevant documents and the interview with the CPA developer that the construction start date of each CPA is appropriately added in Section D.1 of the revised MR (ver. 02). Thus, CL 02 is closed.				

CL ID	03	Section no.	H.6	Date: 09/11/2015
Description of CL				
The CPA developer is requested to explain the reason for any increase in the GHG emission reductions by the CPA during the monitoring period in Section H.6 using relevant documents.				
CME response				**Date:** 08/12/2015
The actual emission reductions of CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003 are higher by 1.9%, 1.1% and 2.6% than the estimates, respectively, and the total increase in the actual GHG emission reductions achieved by the implementation of the three CPA-DDs is 1.9% (= (91,689 – 89,996) tCO_2e /89,996 tCO_2e x 100%), compared to the total estimates in the CPA-DDs. The main reason for the increase is due to the change of the grid emission factor from 0.9464tCO_2/MWh to 0.9801tCO_2/MWh, *i.e*., the increase of 3.56 %. Furthermore, the slight increase in the plant operation availability would also contribute to the increased emission reductions. The CPA developers provided supporting documents regarding the increase in the GHG emission reductions.				
Documentation provided by the CME				
- Data of solar irradiation, plant operation availability and grid availability for each CPA during the 1st monitoring period				
DOE assessment				**Date:** 08/12/2015
It is confirmed through the review of relevant documents and the interview with the CPA developer that the increase of the actual emission reductions is mainly due to the change of the grid emission factor and the slight increase in the plant operation availability and these increases are reasonable. Thus, CL 03 is closed.				

CL ID	04	Section no.	ER calculation sheet	Date: 09/11/2015
Description of CL				
CPA 7570-0001: The check meter's export data of Nov 2014 in the ER calculation spreadsheet is much smaller compared to the main meter's data. The CPA developer is requested to clarify the reason.				
CME response				**Date:** 08/12/2015

In Nov 2014, the lightning storm damaged supply power to the check meter and the meter stopped working for a few days until the power supply was repaired. This is the reason why the check meter's export data of Nov 2014 is much smaller compared to the main meter's data.
Documentation provided by the CME
- SCADA daily data of the check meter
DOE assessment **Date:** 08/12/2015
It is confirmed through the review of the SCADA daily data of the check meter and the interview with the CPA developer that much smaller electricity data of the check meter in Nov 2014 is due to the power down to the meter by lightning storm.

CL ID	05	**Section no.**	G.1	**Date:** 09/11/2015
Description of CL				
CME is requested to justify whether Standardized baseline ASB0001 can be applied to the proposed PoA in relation to the paragraph 12 in ASB0001.				
CME response				**Date:** 08/12/2015
The parameter of $EF_{CO2,grid,y}$ (0.9801 tCO_2/MWh) is provided as a default value from Standardized baseline ASB0001 "Grid emission factor for the Southern African power pool (ver. 01.0), which is different from that (0.9464 tCO_2/MWh) stated in each CPA-DD where this parameter was determined using "Tool to calculate the emission factor for an electricity system". The CME corresponded to the DNA of South Africa to confirm whether no legal restrictions for international electricity exchange between any of the SAPP member countries took effect after the adoption of the standardized baseline ASB0001.				
Documentation provided by the CME				
- Copy of e-mail correspondence with the DNA of South Africa, dated 01-02/10/2015 - ASB0001 Standardized baseline "Grid emission factor for the Southern African power pool (ver. 01.0)				
DOE assessment				**Date:** 08/12/2015
It is confirmed through the interview with the CME and e-mail correspondence to the DNA of South Africa that no legal restrictions for international electricity exchange between any of the SAPP member countries took effect after the adoption of the standardized baseline ASB0001. Therefore, the default value from ASB0001 as emission factor of the grid (0.9801 tCO_2/ MWh) is applicable to each CPA under the registered PoA. Thus, CL 05 is closed.				

Table 3. CAR from this verification

CAR ID	01	**Section no.**	G.2	**Date:** 09/11/2015
Description of CAR				
Information on type, accuracy class, serial number, calibration frequency, date of last calibration and validity of monitoring equipment in Section G.2 is not included.				
CME response				**Date:** 08/12/2015
The information on type, accuracy class, serial number, calibration frequency, date of last calibration and validity of electricity meter used in the monitoring activity is appropriately added in Section G.2 of the revised MR (ver. 02).				
Documentation provided by the CME				

- Manufacturer's specification of electricity meter
- Calibration certificate of electricity meters used for each CPA
- Certificate of accreditation (143) for Power Meter Technics (Pty) Ltd.
- NRS 057:2009 – South African National Standard- Code of practice for electricity metering , including calibration frequency, accuracy class and testing of metering equipment.

DOE assessment	**Date:** 08/12/2015
It is confirmed through the review of the relevant documents, on-site inspection and the interview with the CME/CPA developer that the information on the electricity meter used for monitoring is appropriately added in Section G.2 of the revised MR (ver. 02). Thus, CAR 01 is closed.	

CAR ID	02	**Section no.**	D.1 and E.6	**Date:** 09/11/2015
Description of CAR				
CPA 7570-0001: The change of technical information of the inverter to the programme design of a registered PoA is identified through the on-site inspection. The PP is requested to submit the post-registration changes to the specific-case CPA in Section E.6 of the MR, referring to the paragraph 7 in Appendix 1 of the PS.				
CME response				**Date:** 08/12/2015
The change to project design of the specific-case CPAs for the inverter installed is submitted and the correct information is provided in Section E.6 of the revised MR (ver. 02).				
Documentation provided by the CME				
- Manufacturer's specification of inverter issued by KACO				
DOE assessment				**Date:** 08/12/2015
It is confirmed through the review of the relevant document and on-site inspection that the corrected information on the inverter installed on-site is provided in Section E.6 of the revised MR (ver. 02). Thus, CAR 02 is closed.				

CAR ID	03	**Section no.**	D.1, H.1, H.5 and ER calculation sheet	**Date:** 09/11/2015
Description of CAR				
CPA 7570-0001: The monitoring start date of electricity export to the grid (01/04/2014) is set before the start date of 1st crediting period (01/06/2014). The PP is requested to change the monitoring start date of electricity export.				
CME response				**Date:** 08/12/2015
The monitoring start date of electricity export is correctly revised to 01/06/2014 which is the start date of the 1st crediting period.				
Documentation provided by the CME				
- ER calculation spreadsheet including monthly electricity data				
DOE assessment				**Date:** 08/12/2015
It is confirmed through the review of the ER calculation spreadsheet that the start date of the 1st monitoring period (01/06/2014) is properly set and the quantity of electricity export and import during the 1st monitoring period are correctly determined. Thus, CAR 03 is closed.				

CAR ID	04	**Section no.**	H.5	**Date:** 09/11/2015
Description of CAR				

The annual GHG emission reductions estimated for each year covering this monitoring period are provided for "Value estimated in ex-ante calculation in the included CPA-DDs" in Section H.5. However, the total amount of the estimates for this monitoring period should be calculated in order to compare it with the actual value achieved by these CPAs.
CME response **Date:** 08/12/2015
The PP has provided the total amount of the emission reductions for the 1st monitoring period, calculated from the annual estimates of each year in the CPA-DDs in Section H.5 of the revised MR (ver. 02).
Documentation provided by the CME
N/A
DOE assessment **Date:** 08/12/2015
It is confirmed through the review of the CPA-DDs that the total estimates of the emission reductions for the 1st monitoring period are correctly calculated in Section H.5 of the revised MR (ver. 02). Thus, CAR 04 is closed.

CAR ID	05	**Section no.**	ER calculation spreadsheet	**Date:** 09/11/2015
Description of CAR				
It is found through the review of the ER calculation spreadsheet and on-site inspection that electricity data consumed for the operation of office and auxiliary equipment through the back-up line for CPA 7570-002 and CPA 7570-0003 is not included in the calculation of emission reductions.				
CME response **Date:** 08/12/2015				
The CPA developers have provided the monthly data of electricity consumed for the operation of office and auxiliary equipment in the ER calculation spreadsheet and correctly re-calculated the emission reductions.				
Documentation provided by the CME				
- Monthly data of electricity consumed for the operation of office and auxiliary equipment				
DOE assessment **Date:** 08/12/2015				
It is confirmed through the review of the ER calculation spreadsheet that the emission reductions of CPA 7570-002 and CPA 7570-0003 are correctly re-calculated by including the electricity consumption for the operation of office and auxiliary equipment. Thus, CAR 05 is closed.				

CAR ID	06	**Section no.**	ER calculation sheet	**Date:** 09/11/2015
Description of CAR				
The inconsistencies listed below are to be resolved. 1) The following monthly data in the ER calculation spreadsheet are not consistent with their SCADA data: CPA 7570-0001: The main meter's monthly export electricity data of Feb 2015, CPA 7570-0002: The main meter's monthly export electricity data of Dec 2013, May 2014 and Feb 2015, CPA 7570-0003: The main meter's monthly export electricity data of Jan 2014, May 2014, June 2014, Apr 2015 and June 2015. CPA 7570-0003: The check meter's monthly export electricity data of Jan 2014, Apr 2014, Apr 2015 and June 2015. 2) CPA 7570-0001: It is confirmed through the interview with the CPA developer that the purchase invoices based on the main meter measurement were not issued by Eskom because the price of electricity import has not been determined yet. Therefore, the CPA developer is requested to exclude these invoices data from cross-checking process of electricity import. 3) The quantities of net electricity supplied to the grid in Section G.2 are not consistent with those in the ER calculation spreadsheet.				
CME response **Date:** 08/12/2015				

1) CPA 7570-0001: The main meter's monthly export electricity data of Feb 2015 is corrected in the updated ER calculation spreadsheet, CPA 7570-0002: The main meter's monthly export electricity data of Dec 2013, May 2014 and Feb 2015 are corrected in the updated ER calculation spreadsheet, CPA 7570-0003: The main meter's monthly export electricity data of Jan 2014, May 2014, June 2014, Apr 2015 and June 2015 are corrected in the updated ER calculation spreadsheet, CPA 7570-0003: The check meter's monthly export electricity data of Jan 2014, Apr 2014, Apr 2015 and June 2015 are corrected in the updated ER calculation spreadsheet. 2) Monthly electricity import data are cross-checked with data measured by the check meter without using the purchase invoice and the higher value is chosen for conservativeness in the calculation of emission reductions. 3) The quantity of net electricity supplied to the grid in section G.2 is appropriately corrected, based on the monthly electricity export data in the ER calculation spreadsheet.
Documentation provided by the CME
- Revised ER calculation spreadsheets of CPA 7570-0001, CPA 7570-0002 and CPA 7570-0003
DOE assessment **Date:** 08/12/2015
It is confirmed through cross-checking with the SCADA data that the monthly electricity data measured by the main and check meters in the ER calculation spreadsheet are properly corrected and the emission reductions during the 1st monitoring period are conservatively determined based on the verified monthly electricity data. Thus, CAR 06 is closed.

CAR ID	07	**Section no.**	H.1	**Date:** 09/11/2015
Description of CAR				
Followings typos are to be corrected: 1) The value of baseline emissions for CPA 7570-0002 in Sections H.1 and H.4 are not correctly calculated. 2) The amount of the emission reductions in cover page and Sections H.4 and H.5 is not correctly calculated. 3) The formula of "Total electricity supplied to the grid" (cell: I26) and "$EG_{BL,y}$" (cell: K26) in the ER calculation spreadsheet of CPA 7570-0002 is not correct.				
CME response				**Date:** 08/12/2015
1) The value of baseline emissions of CPA 7570-0002 in Sections H.1 and H.4 is corrected. 2) The amount of the emission reductions in cover page and Sections H.4 and H.5 is corrected. 3) The formula of "Total electricity supplied to the grid" and "$EG_{BL,y}$" in the ER calculation spreadsheet of CPA 7570-0002 is corrected.				
Documentation provided by the CME				
- Revised ER calculation spreadsheet of CPA 7570-0002				
DOE assessment				**Date:** 08/12/2015
It is confirmed through the review of the revised MR (ver. 02) and ER calculation spreadsheet (ver. 02) that all typos are appropriately corrected. Thus, CAR 07 is closed.				

Table 4. FAR from this verification

FAR ID	--	**Section No.**	N/A	**Date:** DD/MM/YYYY
Description of FAR				
N/A				
CME response				**Date:** DD/MM/YYYY
N/A				
Documentation provided by the CME				

N/A	
DOE assessment	**Date:** DD/MM/YYYY
N/A	

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