



**Validation report form for post-registration changes for
CDM project activities
(Version 02.0)**

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

BASIC INFORMATION

Title and UNFCCC reference number of the project activity	Grid-connected Solar PV project in Méouane (UNPA Reference Number: 10327)
Process track	<input checked="" type="checkbox"/> Prior approval <input type="checkbox"/> Issuance <input type="checkbox"/> Renewal of crediting period
Version number of the validation report on PRCs	Version 2
Completion date of the validation report on PRCs	19/04/2019
Type(s) of PRCs	<input type="checkbox"/> Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines <input checked="" type="checkbox"/> Corrections <input type="checkbox"/> Changes to the start date of the crediting period <input type="checkbox"/> Inclusion of a monitoring plan <input checked="" type="checkbox"/> Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools <input type="checkbox"/> Changes to the project design <input type="checkbox"/> Changes specific to afforestation and reforestation project activities
Version number of PDD to which this report applies	Version 1.6, dated 18/04/2019
Project participants	Senergy PV SA
Host Party	Senegal
Applied methodologies and standardized baselines	Methodology: ACM0002 - Grid-connected electricity generation from renewable sources - Version 16.0
Mandatory sectoral scopes linked to the applied methodology	Sectoral Scope: 1 - Energy industries (renewable - / non-renewable sources)
Conditional sectoral scopes linked to the applied methodologies	NA
Name and UNFCCC reference number of the DOE	Carbon Check (India) Private Ltd. (E-0052)

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

Vikash Kumar Singh, Compliance Officer



SECTION A. Executive summary

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Purpose, general description and location of the project activity:

Senergy PV SA, hereafter referred as the “Project Participant” (PP), has appointed the DOE, Carbon Check (India) Private Ltd. (CC IPL) to perform an independent validation of the post registration changes of the CDM Project Activity “Grid-connected Solar PV project in Méouane” (UNFCCC Ref. No.: 10327) in Senegal (hereafter referred to as “Project Activity”). The project is a 29.49 MW solar PV plant located in Méouane, department of Tivouane, region of Thiès, Senegal, producing electricity and supplying to the grid. The electricity generated by the project replaces the grid electricity generated from fossil fuels and reduce GHG emissions for the duration of the project. This project consists of 92,160 modules of 320 W each, connected to the national grid with a total installed capacity of 29.49 MW. The solar PV power plant covers an area of 64 hectares.

Scope of validation:

This validation is an independent and objective review of the post registration changes in the registered PDD/B04/. The scope of the validation of post registration changes is to determine whether there are proposed or actual changes to the project design of the registered CDM project activity. CC IPL also determined whether the description in the revised PDD/02/ submitted by project participants, which describe the nature and extent of the actual changes, accurately reflects the implementation, operation and monitoring of the modified project activity. The validation of post registration changes in the revised PDD/01-3/ were based on the following:

- (i) Approved consolidated methodology ACM0002 (version 16.0) /B02/ and the applied tools
- (ii) Revised PDD (in track change and clean mode) /02/
- (iii) CDM VVS for Project Activities (version 02.0) /B01-1/
- (iv) CDM PS for Project Activities (version 02.0) and /B01-2/
- (v) CDM PCP for Project Activities (version 02.0) /B01-3/
- (vi) Relevant decisions, guidance and clarifications of the CMP and CDM EB

Validation process:

The validation process for post registration changes includes the following steps:

- (a) Contract with project participants and appointment of validation team and technical review team
- (b) Desk review of the revised PDD by validation team and planning of onsite visit
- (c) On site visit and follow up interviews by the validation team
- (d) Reporting and closure of findings (CARs/CLs/FARs) and preparation of validation report
- (e) Independent technical review of the validation report
- (f) Issuance of final validation report to the contracted PP and submission to UNFCCC for approval of post registration changes as appropriate.

The summary of proposed changes is as below:

Sl. No.	Correction
1.	Correction of sections A.3 and B.7.1 with regard to situation of meters to be coherent with figures 6 and 7 of the same section and correction of section B.7.1 with regard to number of meters to be coherent section A.3. Correction of section B.7.3 with regard to situation of meters to be coherent with figures 6 and 7 and with regard to number of meters to be coherent with section A.3.
Sl. No.	Permanent changes to monitoring Plan
1.	Update of situation, number, maintenance and testing and calibration requirements of MV electricity meters

Conclusion:

The report is based on the assessment of the revised PDD undertaken through application of standard auditing techniques including but not limited to document reviews and stakeholder interviews, review of the applicable/applied methodology and its underlying formulae and calculations.

This report contains the findings and resolutions from the validation and a validation opinion on the proposed post-registration changes thus confirming the revised project design as document is sound and reasonable and meets the stated requirements and identified criteria. The validation confirms that the implementation of the post registration changes is in line with the applied methodology and all other applicable tools and guidance.

This report is the combined assessment opinion for all the changes that are proposed in the PDD and request is submitted for prior approval by CDM EB.

SECTION B. Validation team, technical reviewer and approver

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B.1. Validation team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Validation findings
1.	Team Leader/ Validator/ Technical Expert	IR	Dimri	Anubhav	CC IPL	X	X	X	X
2.	Local Expert	EI	Mar	Papa Moussa	CC IPL		X	X	

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

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Singh	Vikash Kumar	CC IPL
2.	Approver	IR	Singh	Vikash Kumar	CC IPL

SECTION C. Means of validation

C.1. Desk/document review

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The validation was performed primarily based on the review of the revised PDD and the supporting documentation. This process included review of data and information presented to verify their completeness and review of the monitoring plan and monitoring methodology. Documents reviewed or referenced during the verification are listed in Appendix 3 below.

C.2. On-site inspection

Duration of on-site inspection: 08/08/2018				
No.	Activity performed on-site	Site location	Date	Team member

1.	An assessment of the implementation and operation of the registered project activity as per the registered PDD	Méouane solar site, Thiess region, Senegal	08/08/2018	Anubhav Dimri, Papa Moussa Mar
2.	A review of information flows for generating, aggregating and reporting the monitoring parameters	Méouane solar site, Thiess region, Senegal	08/08/2018	Anubhav Dimri, Papa Moussa Mar
3.	Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the PDD	Méouane solar site, Thiess region, Senegal	08/08/2018	Anubhav Dimri, Papa Moussa Mar
4.	A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources	Méouane solar site, Thiess region, Senegal	08/08/2018	Anubhav Dimri, Papa Moussa Mar
5.	A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD and the selected methodology and corresponding tool(s), where applicable	Méouane solar site, Thiess region, Senegal	08/08/2018	Anubhav Dimri, Papa Moussa Mar
6.	A review of calculations and assumptions made in determining the GHG data and emission reductions	Méouane solar site, Thiess region, Senegal	08/08/2018	Anubhav Dimri, Papa Moussa Mar
7.	An 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	Méouane solar site, Thiess region, Senegal	08/08/2018	Anubhav Dimri, Papa Moussa Mar

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Thiam	Amadou	Eiffage	08/08/2018	Project technical specification and operation including metering and QA/QC	Anubhav Dimri, Papa Moussa Mar
2.	Mayr	Sebastian	Aera Group	08/08/2018	Project technical specification and operation including metering and QA/QC, Discussion with regards to the post-registration changes	Anubhav Dimri, Papa Moussa Mar
3.	Ba	Abdourahmane	Cabinet EES	08/08/2018	Project technical specification and operation including metering and QA/QC	Anubhav Dimri, Papa Moussa Mar
4.	Sow	Colo	Senelec	08/08/2018	Metering and invoicing, Grid connections and capacity, calibration procedure requirements, Meter location	Anubhav Dimri, Papa Moussa Mar

C.4. Sampling approach

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Not Applicable.

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

Areas of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with PDD form	-	-	-
Temporary deviations from the registered monitoring plan, applied methodologies or applied standardized baselines	-	-	-
Corrections	01	-	-
Changes to the start date of the crediting period	-	-	-
Inclusion of a monitoring plan	-	-	-
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other applied standards or tools	01	-	-
Changes to the project design	-	-	-
Changes specific to afforestation and reforestation project activities	-	-	-
Others (please specify)	-	-	-
Total	02	00	00

SECTION D. Validation findings**D.1. Compliance with PDD form**

Means of validation	Document Review, Interview
Findings	NA
Conclusion	<p>The revised PDD /01-3/ has been completed using the latest available template of CDM-PDD-FORM /B06/ and has been submitted in both track change and clean versions /01-3/.</p> <p>Both the registered /B04/ and revised PDD /01-3/ were reviewed for the consistency of the information and it is confirmed that the information transferred from the previous template to the new template is materially the same as in the registered PDD /B04/ except the changes due to the proposed PRC.</p> <p>This confirms to the requirements of §278 and 279 of the VVS for project activities (version 02.0) /B01-1/.</p> <p>Furthermore, in accordance with §280 (a) of VVS for project activities (version 02.0) /B01-1/, the validation team confirms that:</p> <p>(i) The revised PDD /01-3/ is compliant with the valid version of the CDM-PDD-Form /B06/ and instructions therein; and</p> <p>The information transferred to the revised PDD /01-3/ is materially the same as that provided in the registered PDD /B04/.</p>

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

Means of validation	DR, I
Findings	NA
Conclusion	NA

D.3. Corrections

Means of validation	DR, I
Findings	CL 01 had been raised in this regard and has been resolved.
Conclusion	The PDD has been revised using the latest available template /B04/ on UNFCCC website. In order to meet the template guidelines, corrections have been made in the revised PDD /01-3/. The validation team confirms that these changes do not

	<p>change the project description or design. The proposed correction in the revised PDD is accurate reflection of the actual situation.</p> <p>Following corrections have been made in the registered PDD/01-3/:</p> <ul style="list-style-type: none"> Correction of sections A.3 and B.7.1 with regard to situation of meters to be coherent with figures 6 and 7 of the same section and correction of section B.7.1 with regard to number of meters to be coherent with section A.3. Correction of section B.7.3 with regard to situation of meters to be coherent with figures 6 and 7 and with regard to number of meters to be coherent with section A.3. <p>PP has provided the correction in the section A.3 of the PDD and has clarified that the change has been made in accordance with the Figure 6 of the registered PDD. An ambiguous statement was provided in the registered PDD on the location of the meters and it has been corrected to clearly state that the meters are located on the main distribution/collector substation located on the site of the project activity.</p> <p>Furthermore, the number of meters has been corrected from 2 meters (owned by, project participant, Senenergy PV SA) to 2x2 meters as 2 meters have been installed for each of the two feeder lines in the section B.7.1 and B.7.3 of the PDD/01-3/. The proposed changes are in accordance with the Data / Parameter table 14 provided in the section 6.1 of the methodology ACM0002, version 16/B02/. The location of the electricity meters was confirmed through interviews with the Senelec (grid operator) incharge, Mr. Colo Sow during the on-site visit and it was determined that the location and the number of the meters as established by the PP is in accordance with the host country requirements and the PPA for the project activity.</p> <p>In accordance with the §232 of the PS for the project activities version 02/B01-2/, the changes have been documented by the PP in the revised PDD/01-3/. The change presents the accurate reflection of actual project information (i.e. the location and number of electricity meters).</p> <p>Based on the above, the validation team has accepted all the proposed corrections in the PDD /01-3/ in accordance with requirements of §287, §288 and §289 of VVS for project activities, version 02.0 /B01-1/ and confirms that the corrected information is an accurate reflection of actual project information.</p>
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D.4. Changes to the start date of the crediting period

Means of validation	DR, I
Findings	NA
Conclusion	NA

D.5. Inclusion of a monitoring plan

Means of validation	DR, I
Findings	NA
Conclusion	NA

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

Means of validation	DR, I
Findings	CL02 had been raised in this regard and have been resolved.
Conclusion	<p>PP has proposed permanent changes to the registered monitoring plan. The post registration changes have been proposed in accordance with the § 238 of the PS for the project activities, version 02/B01-2/ and section 8.3.4 of the VVS for the project activities, version 02/B01-1/.</p> <p>In the section B.7.1 of the registered PDD/B04/, calibration requirements for the installed electricity meters under "Measurement methods and procedures" for the monitoring parameter, $EG_{facility,y}$, were provided as:</p> <p>Original: "A test and calibration of the meters will be carried out after each deviation of more than $\pm 0.5\%$ but at least once every 6 months, certified by a third party."</p>

	<p>Proposed Change: <i>"The calibration of meters, including the frequency of calibration, should be done in accordance with national standards or requirements set by the meter supplier or requirements set by the grid operators: Requirements set by the meter supplier apply. With respect to frequency of calibration, no periodic calibration is required after initial calibration ex works, neither by national standards, nor by the meter supplier, nor by the grid operator.</i></p> <p><i>Regular maintenance and testing in accordance with the stipulation of the meter supplier and/or as per the requirements set by the grid operators or national requirements: In absence of a grid code and stipulations of the meter supplier, national requirements apply. As per Senegalese decree 60-415, in normal circumstances, a periodic verification of the meters is performed on an annual basis."</i></p> <p>The calibration/ testing type has been changed by the PP and instead of the proposed calibration of the meters to be done after each deviation of more than $\pm 0.5\%$ but at least once every 6 months, changes have been proposed. This has been done due to the erroneous interpretation in the registered PDD/01-3/ and a corrected statement following the clarification from the manufacturer/02/ that the meters do not require any periodic calibration after the initial calibration testing done by the manufacturer. The revised proposed calibration/testing requirement proposes a periodic verification of the meters performed on an annual basis. This is in accordance with the power purchase agreement/04/, which is based on the decree 60-415 implemented by the department of metrology of the Senegal/05/. PP has also detailed what entails the verification in the Appendix 7 of the PDD/B01-3/. As per Art. 1 and 2 of the decree/05/, it shall be verified if the meter underwent initial primitive verification and if it meets certain characteristics, particularly in terms precision. The verification determines if the meter is in conformity with the decree or needs to be refurbished or removed from service.</p> <p>The proposed changes do not have any impact on the applicability of the methodology ACM0002, version 16/B02/, and does not provide any requirement on the location of the meters. Furthermore, all the installed meters are bidirectional meters and continue to follow the Measurement procedures (if any) of the Table 14 provided in the section 7.2 of the methodology/B02/. The change does not have any impact on the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan as the accuracy class of the installed meters continues to be same as provided in the registered PDD/B04/.</p> <p>The change has been validated in accordance with the section 8.3.4 of the VVS for the project activities, version 02/B01-1/.</p>
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D.7. Changes to the project design

Means of validation	DR, I
Findings	NA
Conclusion	NA

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

Means of validation	DR, I
Findings	NA
Conclusion	NA

SECTION E. Internal quality control

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The final validation report passed a technical review before being submitted to the UNFCCC Executive Board. A technical reviewer qualified in accordance with the CC IPL's qualification scheme for CDM validation and verification performed the technical review.

SECTION F. Validation opinion

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Carbon Check (India) Private Ltd. (CC IPL) has performed the validation of the prior approval track post-registration changes for the registered CDM Project Activity “Grid-connected Solar PV project in Méouane” having UNFCCC reference number 10327. During the validation of the post-registration changes to the project activity, corrections and permanent changes to the monitoring plan from registered project activity has been identified. The post registration changes (PRC) to registered project activity has been validated in line with the requirements of PCP for project activities (version 02.0) /B01-3/, PS for project activities (version 02.0) /B01-2/ and VVS for project activities (version 02.0) /B01-1/.

CC IPL based on review of the revised PDD /01-3/ and interview with the PP confirms that the proposed changes:

- Are an accurate reflection of actual project or programme information; and/or
- Are in accordance with the applied methodologies, the registered monitoring plan.

The proposed permanent changes are unlikely to lead to a reduction in the accuracy of the calculation of emission reductions. The validation team confirms that the revised monitoring plan does not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered PDD.

The version of the templates for PDD was updated to the latest version of template. This change was assessed to confirm that the revised PDD complies with the completing instructions of the CDM-PDD-FORM.

The validation team can confirm that the post registration changes carried out to PDD is in accordance with the requirements of UNFCCC. The DOE therefore accepts the changes and request for the approval of “Corrections” and “Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline”.

The validation was performed on the basis of rules and requirements defined by UNFCCC for the CDM project activities. The review of the revised PDD /01-3/, supporting documentation and subsequent follow-up actions (including interviews), have provided CC IPL with sufficient evidence to determine the fulfilment of stated criteria.


During the course of validation Two (02) CLs were raised and all of them have been successfully closed by the CME.

Carbon Check India Private Ltd. concludes the validation with a positive opinion that the Project Activity “Grid-connected Solar PV project in Méouane”, meets all applicable requirements of UNFCCC for post-registration changes and therefore recommends for the approval of “Corrections” and “Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline” made to the PDD.

Appendix 1. Abbreviations

Abbreviations	Full texts
BE	Baseline Emissions
CA	Corrective Action/ Clarification Action
CER	Certified Emission Reduction
CAR	Corrective Action Request
CC IPL	Carbon Check (India) Private Ltd.
CDM	Clean Development Mechanism
CL	Clarification Request
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
DOE	Designated Operational Entity
DVR	Draft Verification Report
EB	CDM Executive Board
EF	Emission Factor
FA	Final Approval
FAR	Forward Action Request
FVR	Final Verification Report
GHG	Greenhouse gas(es)
GWh	Giga Watt Hour
IPCC	Intergovernmental Panel on Climate Change
LE	Leakage Emissions
MP	Monitoring Period
MR	Monitoring Report
MV	Medium Voltage
MWh	Mega Watt Hour
OSV	On Site Visit
PE	Project Emissions
PP(s)	Project Participant(s)
PRC	Post registration change
PS	Project Standard
QC/QA	Quality Control/ Quality Assurance
SENELEC	Société nationale d'électricité du Sénégal
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

Appendix 2. Competence of team members and technical reviewers



Carbon Check (India) Private Ltd.

Anubhav Dimri

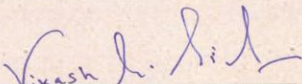
has been qualified as per CCIPL's internal qualification procedures, in accordance with requirements of Accreditation Standard (version 06.0):

For following functions:

Validator	<input checked="" type="checkbox"/>	Team Leader	<input checked="" type="checkbox"/>	Technical reviewer	<input checked="" type="checkbox"/>
Verifier	<input checked="" type="checkbox"/>	Technical Expert	<input checked="" type="checkbox"/>	Local Expert ¹	<input checked="" type="checkbox"/>

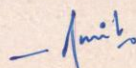
In the following Technical Areas:

TA 1.1	<input checked="" type="checkbox"/>	TA 3.1	<input checked="" type="checkbox"/>	TA 5.2	<input type="checkbox"/>	TA 9.2	<input type="checkbox"/>	TA 13.2	<input type="checkbox"/>
TA 1.2	<input checked="" type="checkbox"/>	TA 4.1	<input type="checkbox"/>	TA 8.1	<input type="checkbox"/>	TA 10.1	<input type="checkbox"/>	TA 14.1	<input type="checkbox"/>
TA 2.1	<input type="checkbox"/>	TA 5.1	<input type="checkbox"/>	TA 9.1	<input type="checkbox"/>	TA 13.1	<input checked="" type="checkbox"/>		



Mr. Vikash Kumar Singh
Compliance Officer

Date of Approval
24/12/2017



Mr. Amit Anand
CEO

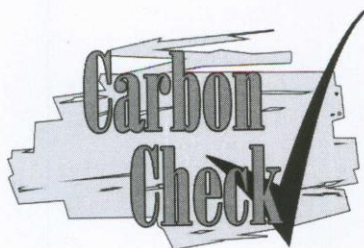
Valid Till
23/12/2018

Revision History of the Document

26/12/2014	Initial Adoption
24/12/2015	Annual Revision
20/01/2016	Interim Revision for office address change
23/12/2017	Annual Revision
24/12/2017	Annual Revision

¹India, South Africa

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Carbon Check (India) Private Ltd.

Vikash Kumar Singh

has been qualified as per CCIPL's internal qualification procedures, in accordance with requirements of Accreditation Standard (version 07.0):

For following functions:

Validator ☒ Team Leader ☒ Technical reviewer ☒
 Verifier ☒ Technical Expert ☒ Local Expert¹ ☒

In the following Technical Areas:

TA 1.1 ☒ TA 3.1 ☒ TA 5.2 ☐ TA 9.2 ☐ TA 13.2 ☒
 TA 1.2 ☒ TA 4.1 ☒ TA 8.1 ☐ TA 10.1 ☐ TA 14.1 ☐
 TA 2.1 ☐ TA 5.1 ☐ TA 9.1 ☐ TA 13.1 ☒

Mr. Amit Anand
CEO

Date of Approval
24/12/2018

Valid Till
23/12/2019

Revision History of the Document

26/12/2014	Initial Adoption
24/12/2015	Annual Revision
20/01/2016	Interim Revision for office address change
23/12/2016	Annual Revision
24/12/2017	Annual Revision
24/12/2018	Annual Revision

¹ India, South Africa

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Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	AERA Group	1. Revised PDD 2. Revised PDD 3. Revised PDD (Final)	Version 1.6, dated 16/04/2019 Version 1.6, dated 18/04/2019 Version 1.6, dated 18/04/2019	Others
2	Itron	Calibration requirements of the energy meters: 1. Email Message from the Manufacturer on the Calibration Requirements for the meter	Dated 19/10/2018	Others
3	Schneider Electric/ JinkoSolar/	Manufacturer's Specifications/ Nameplate Configuration: 1. Electricity Meters (ITRON SL7000)	NA	Others
4	Senelec	Power purchase agreement and Annexes F and H	Dated 31/12/2013	Others
5	Secretariat General Du Gouvernement, Republique du Senegal	No. 60-415 M.C.I DÉCRET organisant le contrôle des instruments de Mesure dans la République du Sénégal	NA	Others
B01	UNFCCC	1. Validation and Verification Standard for projects, version 02.0 2. Project Standard for projects, version 02.0 3. Project Cycle Procedure for projects, version 02.0	http://cdm.unfccc.int/	Others
B02	UNFCCC	Applied baseline and monitoring methodology, ACM0002: "Grid-connected electricity generation from renewable sources", version 16	http://cdm.unfccc.int/	Others
B03	UNFCCC	Attachment. Instructions for filling out the PDD form version 10.1	http://cdm.unfccc.int/	Others
B04	UNFCCC	Registered PDD (version 1.5 dated 25/11/2016) and the corresponding validation report.	http://cdm.unfccc.int/	Others
B05	Web sites	Websites: 1. http://cdm.unfccc.int/ 2. www.ipcc.ch	--	Others
B06	UNFCCC	Guideline: "Application of materiality in verifications" Version 02.0	http://cdm.unfccc.int/	Others
B06	UNFCCC	Tool: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 03.0	http://cdm.unfccc.int/	Others

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

Table 1. CLs from this validation

CL ID	01	Section no.	D.3	Date: 18/04/2019
Description of CL				
<p><i>In section A.3 and section B.7.1 of the PDD, PP has made a correction to the PDD from the registered PDD and provided a reasoning that the correction has been made to provide coherence with the information provided in the figures 6 and 7. However, it has been noticed that both the figures 6 and 7 provide the metering location as Main Distribution Substation (30 kV) and neither state that "...the meters will be installed at each of the two feeder lines to the 30 kV onsite delivery point". It shall be clarified how the PP has justified this as providing coherent information and not additional information with regards to the location of the meters.</i></p> <p><i>PP shall also justify the reason for the installation of meters on the feeder lines and if the change is in compliance with the applied methodology, PPA with the grid operator and justification for the change in the location of the meters from the registered PDD.</i></p>				
Project participant response				Date: 18/04/2019
<p><i>The wording in section A.3 and B.7.1, B.7.3 of the PDD is revised to be fully in coherence with the wording on figures 6 and 7:</i></p> <p><i>Section A.3: "Two times two meters will be installed at the project site distribution station."</i></p> <p><i>Section B.7.1: "Two times two meters will be installed at the project site distribution station."</i></p> <p><i>Section B.7.3: "...two times two calibrated electricity meters installed at the project site distribution station..."</i></p> <p><i>Please note that the change in section B.7.3 has been omitted and now been added in Appendix 7 of the revised PDD.</i></p> <p><i>Since the revised PDD does not provide detail of the feeder lines anymore, no justification is provided.</i></p>				
Documentation provided by project participant				
Revised PDD.				
DOE assessment				Date: 18/04/2019
<p>PP has revised the statement provided in the section A.3 of the PDD and the change has been made on the location of meters from main distribution sub-station to the project site distribution station. PP shall justify the reason for the change in the location of meters from the registered PDD and if the change is in compliance with the applied methodology and the PPA with the grid operator.</p>				
Project participant response				Date: 18/04/2019
<p>Appendix 7 has been revised to provide for reasons of the corrections and compliance with methodology, actual situation (including PPA) and the project standard:</p> <p><u>Reasons:</u> The incoherence with regard to location of meters in the registered PDD is due to the ambiguous use of "sub-station" in internal communication both for the Senelec grid substation and the main distribution substation located at the project site at stage of project registration. At the same time, figures 6 and 7 of the revised PDD clearly indicate the metering points.</p> <p>The incoherence with regard to number of meters in the registered PDD is due to the installation of two Senelec - owned meters and two Senenergy PV SA - owned meters. Section B.7.1 and section B.7.3 mentioned only two meters, as monitoring of Senelec meters was technically possible/desirable at stage of project validation/registration.</p> <p>All corrections all in line with ACM0002, V. 16 (Data / Parameter table 14), which does not state any requirements with respect to location and number of meters, the actual situation (including the PPA), as well as para. 232 of the Project Standard V.2. All parameter values of the registered monitoring plan remain unchanged.</p>				
Documentation provided by project participant				
Revised PDD				
DOE assessment				Date: 19/04/2019

PP has provided the correction in the section A.3 of the PDD and has clarified that the change has been made in accordance with the Figure 6 of the registered PDD. An ambiguous statement was provided in the registered PDD on the location of the meters and it has been corrected to clearly state that the meters are located on the main distribution/collector substation located on the site of the project activity. Furthermore, the number of meters has been changed from 2 meters (one each for Senelec – Grid Operator and Senenergy PV SA – project participant) to 2x2 meters as 2 meters have been installed for two lines. The changes are in accordance with the methodology ACM0002, version 16. The location of the electricity meters was confirmed through interviews with the Senelec (grid operator) incharge during the on-site visit and it was determined that the location and the number of the meters is in accordance with the host country requirements and the PPA for the project activity.

CL ID	02	Section no.	D.6	Date: 18/04/2019
Description of CL				
<ol style="list-style-type: none"> 1. <i>In section B.7.1 of the PDD, PP has proposed change in the registered monitoring plan and accordingly calibration frequency of the meters has been changed. PP shall explain how the change does not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan.</i> 2. <i>PP has not provided evidence to support the argument that the calibration of meters is not required, "...after initial calibration ex works, neither by national standards, nor by the meter supplier, nor by the grid operator."</i> 3. <i>PP shall explain if the proposed change is in accordance with the PPA for the project activity.</i> 				
Project participant response				Date: 18/04/2019
<ol style="list-style-type: none"> 1. <i>The accuracy class of the installed meters remains unchanged and continues to be same as provided in the registered PDD. Appendix 7 has been amended accordingly.</i> 2. <i>The email of the manufacturer of the meter (Enerdis), which supports the argument is submitted herewith.</i> 3. <i>As stated in Appendix 7 of the revised PPD, the proposed change is in accordance with the PPA of the project activity. Para. 10.4.1 of the PPA requires only the annual test and inspection of the meters.</i> 				
Documentation provided by project participant				
Revised PDD PPA and Annex H Email of manufacturer (Enerdis)				
DOE assessment				Date: 18/04/2019
<ol style="list-style-type: none"> 1. PP has stated that the accuracy class of the installed meters remains unchanged and continues to the same as provided in the registered PDD. It needs to be clarified if the level of accuracy is maintained for the meters as they are no longer calibrated. CL02.1 remains open. 2. The email from enerdis has been provided to the verification team. The installed meters are from Itron, it needs to be clarified how the evidence is relevant for the project activity. Also, no clarification has been provided on the requirement by national standards and the grid operator. CL02.2 remains open. 3. PP has provided the PPA and clarified that the para 10.4.1 of the PPA requires only the annual test and inspection of the meters. It needs to be clarified if the annual test and inspection of the meters is being carried out under the revised changes. CL02.3 remains open. 				
Project participant response				Date: 18/04/2019

1. It has been clarified in Appendix 7 that

The accuracy class of the installed meters remains unchanged and continues to be same as provided in the registered PDD. As the meter supplier states, no periodic calibration of the electricity meter is required to ensure its accuracy. Finally, the power purchase agreement continues to entail provisions, which allow for detection of inaccuracy and implementation of corrective action in case measurements of a pair of two meter deviates more than $\pm 0.5\%$.

2. The correct email by ITRON is submitted herewith.

3. As per section 7.1 the annual test and inspection of the meters is being carried out under the revised changes:

In absence of a grid code and stipulations of the meter supplier, national requirements apply. As per Senegalese decree 60-415, in normal circumstances, a periodic verification of the meters is performed on an annual basis.

Documentation provided by project participant

Email Itron
Revised PDD

DOE assessment

Date: 19/04/2019

1. PP has clarified that the accuracy class of the installed meters continues to remain same as provided in the registered PDD. CL02.1 is closed.
2. PP has provided the email from the manufacturer of the electricity meters and based on the email provided the manufacturer confirms that installed meters SL7000 do not need any calibration after the installation. CL02.2 is closed.
3. PP has clarified that the annual test and inspection of the meters is being carried out as periodic verification in accordance with the Senegalese decree 60-415 and the Power Purchase Agreement. CL02.3 is closed.

Table 2. CARs from this validation

CAR ID	xx	Section no.	Date: DD/MM/YYYY
Description of CAR			
Project participant response			Date: DD/MM/YYYY
Documentation provided by project participant			
DOE assessment			Date: DD/MM/YYYY

Table 3. FARs from this validation

FAR ID	xx	Section no.	Date: DD/MM/YYYY
Description of FAR			
Project participant response			Date: DD/MM/YYYY
Documentation provided by project participant			
DOE assessment			Date: DD/MM/YYYY

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
02.0	31 October 2017	Revision to align with the requirements in the “CDM validation and verification standard for project activities” (version 01.0).
01.0	23 March 2015	Initial publication.
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