

Validation report form for post-registration changes for CDM project activities

(Version 01.0)

Complete this form in accordance with the "Attachment: Instructions for filling out the validation report form for post-registration changes for CDM project activities" at the end of this form.

VALIDATION REPORT ON PO	ST-REGISTRATION CHANGES (PRCs)		
Title and reference number of the project activity	NURU Light - Cameroon UNFCCC Ref. No.: 10291		
Process track	Prior approval		
	Issuance		
	Renewal of crediting period		
Version number of the validation report on PRCs	04		
Completion date of the validation report on PRCs	06/09/2017		
Type(s) of PRCs	Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline		
	⊠ Corrections		
	Changes to the start date of the crediting period		
	Inclusion of a monitoring plan to a registered project activity		
	Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline		
	Changes to the project design of a registered project activity		
	Types of changes specific to afforestation and reforestation project activities		
Version number of PDD to which this report applies	Version: 04.0; Dated: 10/07/2017		
Project participant(s)	S2 Services Sarl		
	Swedish Energy Agency		
Host Party	Cameroon		
Sectoral scope(s), selected	Sectoral Scope: 01		
selected standardized baseline(s)	AMS-III.AR. – "Substituting fossil fuel based lighting with LED/CFL lighting systems" (version 05.0).		
Name of DOE	Carbon Check (India) Private Limited		
Name, position and signature of the	Vikash Kumar Singh, Compliance Officer		

approver of the validation report on PRCs	00
	Can D. Sis

SECTION A. Executive summary

The Project Participant has appointed Carbon Check (India) Private Ltd., (CCIPL) to perform an independent validation of the Post Registration Changes (PRC) to the CDM Project Activity titled "NURU Light - Cameroon" (hereafter referred to as "Project Activity").

The term "UNFCCC criteria" refers to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM Executive Board. The independent validation by the DOE is required on the Registered PDD to confirm the post registration changes. This report summarises the post registration changes of the project with respect to requirements of CDM Validation and Verification Standard for Project Activities (version 01.0). This report contains the findings and resolutions from the validation and a validation opinion.

The objective of the Project Activity is dissemination of LED lighting systems (solar lanterns and solar lighting kits) in the Republic of Cameroon (host country), which will replace kerosene lanterns and tin lamps with renewable energy based LED lighting systems.

Scope:

This validation is an independent and objective review of the post registration changes in the registered PDD. 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. CCIPL also determined whether the description in the revised PDD 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 were based on the following:

- (i) Approved methodology AMS-III.AR (version 05.0) /B02/ and the applied tools;
- (ii) Revised PDD (in track change and clean mode) /03/;
- (iii) CDM Validation and Verification Standard for Project Activities (Version 01.0) /B01-a/;
- (iv) CDM Project Standard for Project Activities (Version 01.0) /B01-b/; and
- (v) CDM Project Cycle Procedure for Project Activities (Version 01.0) /B01-c/
- (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 the project participants and the appointment of the validation team and the technical review team
- (b) Desk review of the revised PDD by the validation team
- (c) 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 the final validation report to the contracted PP(s) and submission to the UNFCCC for approval of post registration changes as appropriate.

Conclusion:

In summary, the post registration changes consist of corrections, and changes to the project design. The validation team confirms that the post registration changes in the project activity require prior approval from the Board. The DOE therefore accepts the changes and notifies the EB of request for the approval of the post registration changes: "Corrections/ changes to the project design of the registered Project Activity". The validation team confirms that the proposed post

registration changes are in line with the applied methodology and all other applicable tools and guidance.

This report¹ is the combined assessment opinion for all the proposed changes in the PDD and is being submitted for approval by CDM EB.

SECTION B. Validation team, technical reviewer and approver

>>

B.1. Validation team member

No.	Role		Last name	First name	Affiliation	Ir	nvolve	ment i	n
		Type of resource			(e.g. name of central or other office of DOE or outsourced entity)	Desk review	On-site inspection	Interview(s)	Validation findings
1.	Team Leader / Technical Expert	IR	Anand	Amit	CCIPL	х		х	х

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	CCIPL
2.	Approver	IR	Singh	Vikash Kumar	CCIPL

SECTION C. Means of validation

C.1. Desk review

>>

List of all documents reviewed or referenced during the validation is provided in Appendix-3 below.

¹ The validation of Post Registration Changes (PRC) of this project activity has been performed in accordance with the requirements of new CDM regulations, which have come into effect post CDM EB's 93rd meeting. An existing version of CDM-PRCV-FORM has been used by DOE for preparation of PRC validation report, as a new version of CDM-PRCV-FORM for project activities is not available on UNFCCC website.

C.2. On-site inspection

No on site assessment was carried out for the validation of post registration changes for the project activity. However, telephonic and Skype based interviews were conducted with the project participants.

C.3. Interviews

No.	Interviewee		Date	Subject	Team member	
	Last name	First name	Affiliation			
1.	NDONGSOK	Durando	S2 Servies Sarl	14/07/2017 & 28/08/2017 (Via Skype)	Discussion on changes in the PDD including corrections, changes done in the project design, and compliance of changes with the provision provided in the PCP for changes applicable for a project activity.	Amit Anand

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

Areas of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with PDD form		07	
Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline			
Corrections			
Changes to the start date of the crediting period			
Inclusion of a monitoring plan to a registered project activity			
Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline			
Changes to the project design of a registered project activity	01	04	
Types of changes specific to afforestation and reforestation project activities			
Others (Editorial)		01	
Total	01	12	

SECTION D. Validation findings

D.1. Compliance with PDD form

Means of validation	DR, I
Findings	CARs 01, 02, 03, 04, 10, 11 and 12 have been raised in this regard. Please refer to
	appendix 4 for the detailed closure of the validation finding.
Conclusion	The revised PDD /03/ has been completed using the latest available template of CDM-PDD-FORM /B06/ and has been submitted in both track change and clean versions /02/.
	Both the registered and revised PDD 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.
	This confirms to the requirements of §279 and 280 of the VVS for project activities (version 01.0) /B01-a/.

Furthermore in accordance with §281 (a) of VVS for project activities (version 01.0)
/B01-a/, the validation team confirms that:
(i) The revised PDD /03/ is compliant with the valid version of the CDM-PDD-
Form /B06/ and instructions therein; and
(ii) The information transferred to the revised PDD /03/ is materially the same as
that provided in the registered PDD /B04/.

D.2. Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline

Means of validation	DR, I
Findings	Not Applicable
Conclusion	Not Applicable

D.3. Corrections

Means of validation	DR, I
Findings	N/A
Conclusion	Following corrections have been made in the registered PDD:
	 Corrections (addition or deletions) are primarily due to change of the project technology from NURU Lights (which were a combination of a product (Nuru Light lamps) and a service (mechanical Recharge of the lamps) to Solar Lantern and Kits /03/ i.e., replacement of Nuru lights in the document by solar lantern and kits. Other corrections (addition or deletions) are primarily due to the adoption of latest template of the CDM-PDD-FORM (version 10.1) /B06/.
	Validation team has accepted all the proposed corrections in the PDD in accordance with requirements of §287, 288 and 289 of VVS for project activities (version 01.0) /B01-a/ and confirms that the corrected information is an accurate reflection of actual project information and the corrected parameters are in accordance with the applied methodology, the monitoring plan.

D.4. Changes to the start date of the crediting period

Means of validation	DR, I
Findings	Not Applicable
Conclusion	Not Applicable

D.5. Inclusion of a monitoring plan to a registered project activity

Means of validation	DR, I
Findings	Not Applicable
Conclusion	Not Applicable

D.6. Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline

Means of validation	DR, I
Findings	Not Applicable
Conclusion	Not Applicable

D.7. Changes to the project design of a registered project activity

Means of validation	DR, I
Findings	CL 01 and CARs 05, 06, 07, 08 have been raised in this regard. Please refer to
	appendix 4 for the detailed closure of the validation finding.
Conclusion	The current project design involves changes compared to the project design in the registered project activity/B04/. The project design changes to the project activity is:
	 Change of project technology from NURU Lights (which were a combination of a product (Nuru Light lamps) and a service (mechanical Recharge of the lamps) to Solar lantern and lighting Kits which are charged by a renewable

energy system included as part of the p	roject lamp (solar photovoltaic) /02/.
The validation team confirms that this chang CDM project Standard for Project Activities team further confirms that this project desig impact on the compliance of the monitoring monitoring activity, the applied monitoring m thereby complying with paragraph 302 of V /B01-a/.	ye is in accordance with the §242 of the (version 01.0) /B01-b/. The validation gn change does not have any adverse ng plan, the level of accuracy of the nethodology including applicable tool(s) /VS for project activities (version 01.0)
/B01-a/, the validation team has assessed th below:	e effect of the project design change as
(i) Additionality of the registered CDM pro-	oject activity:
The change in type of technology from combination of a product (Nuru Light Recharge of the lamps) to Solar Lanterr project was established in accordance w "Demonstration of Additionality of Small and the same arguments are valid even a	m from NURU Lights (which were a lamps) and a service (mechanical n and Kits /02/. The additionality of the rith § 11 (c) of the methodological tool: Scale Project Activities" (Version 10.0) after the design change.
(ii) Scale of the registered CDM project ac	<u>tivity:</u>
The project is a small-scale project activ not adversely affect the scale of the proje	ity and the project design change does ct activity.
(iii) <u>Applicability and application of the ap</u> which the CDM project activity has bee	proved baseline methodology under en registered;
The applicability conditions of the applied demonstrated as below:	methodology AM0064, version 2 are
Applicability Criteria	Justification / Assessment
 §3: This methodology is applicable only to project lamps whose batteries are charged using one of the following options: (a) Charged by a renewable energy system included as part of the project 	The Project lamps (Solar lantern and lighting kit) are being charged by a renewable energy system included as part of the project lamp (solar photovoltaic) as confirmed through review of product technical specification sheet /04/ and verification letter /05/ from Lighting Global (a world bank initiative) /B10/.
 lamp (e.g. a photovoltaic system or mechanical system such as a hand crank charger); (b) Charged by a standalone distributed generation system (e.g. a diesel generator set) or a mini-grid, i.e. that is not connected to a national or regional grid; 	Part (b) and (c) is not applicable as system charging does not require any diesel generator or connection to grid including mini grid. This was confirmed from the review of the project description and interview of the PP.
 (c) Charged by a grid that is connected to regional/national grid 	Conclusion: Based on the above assessment, the validation team concludes that the project activity complies with the requirements of the applicability criterion as laid out in §3(a) of the applied methodology.
§4: At a minimum project lamps shall be certified by their manufacturer to have a rated average life of at least:	Based on the interview of the PP it was confirmed that the lights of rated life more than 10,000 hours

(a) 5 000 hours for Option 1 percentation	would be used.
 (a) 5,000 hours for Option 1, paragraph 17; (b) 10,000 hours for Option 2, paragraph 18. 	Further, the lighting global testing report confirms that at least 85% of the initial brightness is maintained over 2000 hours for both solar lantern and lighting kit. The same was confirmed through review of product verification letter /05/ from Lighting Global (a world bank initiative) /B10/.
	Thus, the rated life has been confirmed for the shorter period based on the procedures described in paragraph 18(b) of the applied methodology.
	Conclusion: Based on the above assessment, the validation team concludes that the project activity complies with the requirements of the applicability criterion as laid out in §4(b) of the applied methodology.
§5: Rated average life is the life certified by the manufacturer or responsible vendor as being the time at which the lamp's initial light output will decline by no more than 30%. In addition, for project lamps charged using Option 3(c) as provided for in paragraph 3 above, the manufacturer shall certify that the battery- charging-circuit efficiency of the project lamps, at the time of the purchase, is at	Validation team confirmed the rated life of the LED lamp from the review verification letter /05/ from Lighting Global (a world bank initiative) /B10/. It meets the requirement by using the shorter period of 2000 hours as specified in paragraph 18(b) of the applied methodology.
least 50%. For project lamps charged under option indicated in paragraph 3(b), if the mini-grid or distributed generation system is not entirely powered by renewable energy generation unit(s), the manufacturer shall certify that the project lamp's battery charging circuit efficiency, at the time of purchase, is at least 50%.	Conclusion: Based on the above assessment, the validation team concludes that the project activity complies with the requirements of the applicability criterion as laid out in §5 of the applied methodology.
§6: Project lamps shall meet warranty requirements of the Lighting Global Minimum Quality Standard. The project lamps shall have a warranty of a minimum of one year from the time the end-user takes ownership or begins using the lamp. At a minimum, the warranty shall cover free replacement or repair of any failed lamps, batteries, and where applicable solar panels. The warranty shall be clearly communicated and supported through the supply chain and	The validation team checked product technical specification sheet /04/ and verification letter /05/ from Lighting Global (a world bank initiative) /B10/ and confirms that the project lamps have a warranty of a minimum of one year from the time the end-user takes ownership and that the project lamps meet warranty requirements of the Lighting Global Minimum Quality Standard.
available to end-users of the project lamps during the warranty period. In a situation where the project lamps are distributed through intermediaries, the one year warranty shall commence from the time that the project lamps are distributed to end-users. The full warranty terms shall be available in writing, in a	Conclusion: Based on the above assessment, the validation team concludes that the project activity complies with the requirements of the applicability criterion as laid out in §6 of the applied methodology.

ragionally appropriate language and	
included with each unit.	
§7 [.] Project Jamps shall meet or exceed	
the following minimum performance	
characteristics. which should be proven	
by third-party test results:	
(a) Light Output: luminous flux of 25	
lumens or illuminance of 50 lux over	
an area $\geq 0.1 \text{ m}^2$ when suspended at a	
distance of 0.75 meters or self-	
supported. The light output over a	
2,000 hour lumen maintenance test	
should not decline by more than 15%;	
(b) Run Time and Battery Capacity: Daily	
Burn Time (DBT) shall meet the	
following requirements:	The validation confirmed the details
	of illuminance and DBT provided in
(i) DBT shall be equal to or greater	the PDD through review of product
than 4 hours;	technical specification sheet /04/ and
For charging Option 3(a) with	verification letter /05/ from Lighting
solar PV, the DBT is defined by	Global (a world bank initiative) /B10/
the Solar Run Time for the	and found it to be appropriate as it
project lamp (as determined per	fulfills the requirement of the
(ii) For other technologies in ortion	approved methodology.
(II) For other technologies in option	
3(a) the DBT is defined based on	Conclusion:
(iii) For charging Options 2(b) and	Based on the above assessment,
(11) Tor charging Options $S(b)$ and $S(c)$:	the validation team concludes that
(a) The maximum claimed	the project activity complies with the
DBT shall be less than or	requirements of the applicability
equal to the typical	criterion as laid out in §7 of the
capabilities of the	applied methodology.
regional or local energy	
system at delivering	
reliable power sufficient	
for recharging;	
(b) The autonomous (full	
battery) run-time of the	
project lamps shall be	
equal to or greater than	
200 per cent of the DBT	
of the project lamps;	
(c) The project lamp shall be	
tully recharged from a	
discharged state after	
eigni nours or charging.	
so. The project design document shall	
of the project lamps. It shall also explain	There are no changes to the
how the proposed project activity will:	applicability condition from the
(a) Ensure that the replaced baseline	registered PDD /B04/.
lamps are those that directly consume	
fossil fuel. This can be done through	Conclusion:
documentation of the common	Based on the above assessment,
practice of fuel usage for lighting in	the validation team concludes that
the project region (e.g. based on	the project activity complies with the
representative sample surveys,	requirements of the applicability
official data or peer reviewed	applied methodology
literature) that demonstrates that	applied methodology.
fossil fuel is a commonly used fuel for	

 lighting; (b) Encourage the consumers, targeted by the project activity, to use the project lamps and discourage hoarding; (c) Eliminate potential double counting of emission reductions that could occur, for example, if more than one entity (e.g. lamp manufacturers, suppliers of solar and/or battery equipment, etc.) claims credit for emission reductions for the project lamps. At a minimum, project lamps shall be marked as CDM project lamps; (d) Ensure compliance with prevailing regulations pertaining to the use and disposal of batteries. 	
 §9: The project design document shall include the minimum requirements for the design specifications of project lamps including the following specifications: (a) Lamp wattage (in Watts) and luminous flux output (in lumens); (b) Rated lamp life (in hours); (c) Where applicable, the type and rated capacity of the renewable energy equipment used for battery-charging (in Watts); (d) Type (e.g. NiMH, Lead-Acid, Li-ion), and rated capacity of the batteries (in Ampere hours); (e) Type of charge controller (e.g. active or passive); (f) Autonomous time and DBT; (g) Solar Run Times(s) (SRT) for products with solar energy charging systems. If regional solar data are available, the maximum, minimum and average estimated SRT values for each month of a typical year shall be provided. If regional solar data are not available the standard solar day (5 kWh/m2) shall be used to estimate SRT; (h) Where applicable, the amount of time to fully charge the product using mechanical means or a centralized charging system (e.g. the national grid); (i) Physical protection against environmental factors (e.g. rain, heat, insect ingress). 	 (a) Lamp wattage (in watts): Solar lantern: 3 Solar lighting kit: 10 Luminous Flux (in lumens): Solar lantern: 170 (high) & 67 (low) Solar lighting kit: 320 (high) (b) Rated life (in hours): Solar lighting kit: 320 (high) (b) Rated life (in hours): Solar lighting kit: 320 (high) (b) Rated life (in hours): Solar lighting kit: 10,000 hours Solar lighting kit: 10,000 hours Solar lighting kit: 10,000 hours (c) Not Applicable (d) Type of batteries Solar lantern: Li – ion Solar lighting kit: Li – ion Rated capacity of batteries: Solar lighting kit: 8600 mAh Solar lighting kit: 8600 mAh Solar lighting kit: 8600 mAh (e) Type of Charge controller Solar lantern: 7.90 (high) & 17 (low) Solar lantern: 7.9 (high) & 17 (low) Solar lighting kit: 11 (high) DBT (in hours): Solar lighting kit: 7.7 (g) Solar Run Time (in hours) Solar lantern: 5.4 Solar lantern: 5.4 Solar lighting kit: 7.7 (h) Not Applicable (i) Physical protection against environmental factors:
	specification sheet /04/ and

	verification letter /05/ from Lighting Global (a world bank initiative) /B10/ certify that both solar lanterns and lighting kit have passed the physical ingress protection, water ingress protection, drop test and mechanical durability tests.
	The validation confirmed the fulfillment of this applicability criteria of methodology through review of product technical specification sheet /04/ and verification letter /05/ from Lighting Global (a world bank initiative) /B10/.
	Conclusion: Based on the above assessment, the validation team concludes that the project activity complies with the requirements of the applicability criterion as laid out in §9 of the applied methodology.
§10: Measures are limited to those that result in emissions reductions of less than or equal to 60 kt CO2 equivalent annually	There are no changes to the applicability condition from the registered PDD/B04/
	Conclusion: Based on the above assessment, the validation team concludes that the project activity complies with the requirements of the applicability criterion as laid out in §8 of the applied methodology.
(iv) <u>The compliance of the monitoring</u> <u>methodology:</u> The validation team confirms that due to change in the monitoring plan of the methodology. Hence the original monit appropriate and deemed acceptable.	plan with the applied monitoring the project design change, there is no registered PDD and the monitoring toring plan is being retained. This is
(v) The level of accuracy of the monitori contained in the registered monitoring	ng compared with the requirements
The validation team confirms that due to change in the monitoring plan of the regis in the level of accuracy of the monito contained in the registered monitoring pla	the project design change, there is no stered PDD. Hence, there is no change ring compared with the requirements n.
The verification team confirms that PP has latest valid applicable PDD Form /B06/ as p PS for Project Activities (version 01.0) /B Project Activities (version 01.0) /B01-a/ for t the project activity. The verification team als to the later valid version of the PDD form registered PDD /B04/ in line with paragraph 2 01.0) /B01-a/.	submitted the revised PDD /03/ in the er the requirement of paragraph 230 of 01-b/ and paragraph 279 of VVS for he applicable project design change for so confirms that information transferred is materially the same as that in the 280 of VVS for project activities (version

D.8. Types of changes specific to afforestation and reforestation project activities

Means of validation DR, I

Findings	Not Applicable
Conclusion	Not Applicable

SECTION E. Internal quality control

>>

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

SECTION F. Validation opinion

>>

Carbon Check (India) Private Ltd. (CCIPL) has performed the validation of the post-registration changes for the registered CDM Project Activity "NURU Light - Cameroon" having UNFCCC reference number 10291. During the validation of the post-registration changes to the project activity, corrections and design change from registered project activity have been identified. The post registration changes (PRC) to registered project activity have been validated in line with the requirements of PCP for project activities (version 01.0) /B01-c/ and VVS for project activities (versions 01.0) /B01-a/. In line with §308 of VVS for project activities (version 01.0), CCIPL confirms that the post registration changes related to the registered PDD (version 04.2, Dated 30/08/2017) /02/ reflects actual changes related to the registered PDD and are as per section 8 of the PS for project activities (version 01.0) /B01-b/. These changes fall under the category of changes that require prior approval of the Board.

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 /02/, supporting documentation and subsequent follow-up actions (including interviews), have provided CCIPL with sufficient evidence to determine the fulfilment of stated criteria.

The description in the revised PDD (version 04.2, Dated 30/08/2017) /02/ meets all relevant UNFCCC requirements for the CDM and correctly applies the selected baseline and monitoring methodology.

This report² is the assessment opinion for the changes that are proposed in the PDD /02/ and request is submitted for acceptance of the Board in line with paragraph 130 of the PCP for project activities (version 01.0) /B01-c/.

² The validation of Post Registration Changes (PRC) of this project activity has been performed in accordance with the requirements of new CDM regulations, which have come into effect post CDM EB's 93rd meeting. An existing version of CDM-PRCV-FORM has been used by DOE for preparation of PRC validation report, as a new version of CDM-PRCV-FORM for project activities is not available on UNFCCC website.

Appendix 1. Abbreviations

Abbreviations	Full texts
BE	Baseline Emissions
CA	Corrective Action/ Clarification Action
CER	Certified Emission Reduction
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Ltd.
CDM	Clean Development Mechanism
CL	Clarification Request
CO ₂	Carbon Dioxide
CO _{2e}	Carbon Dioxide Equivalent
DOE	Designated Operational Entity
DVR	Draft Validation Report
EB	CDM Executive Board
EF	Emission Factor
FA	Final Approval
FAR	Forward Action Request
FVR	Final Validation Report
GHG	Greenhouse gas(es)
GWh	Giga Watt Hour
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
LoA	Letter of Approval(s)
LE	Leakage Emissions
MoC	Modalities of Communication
MP	Monitoring Period
MR	Monitoring Report
MWh	Mega Watt Hour
OSV	On Site Visit
PE	Project Emissions
PP(s)	Project Participant(s)
PRC	Post registration change
QC/QA	Quality Control/ Quality Assurance
ТА	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

Ę	SAFDOT Check
Carbon Che	ck (India) Private Ltd.
Ē	mit Anand
has been qualified as per CCIPL's interna	I qualification procedures, in accordance with requirements
F	or following functions:
Validator 🛛 Team Verifier 🖾 Techn	Leader I Technical reviewer ical Expert I Local Expert ¹ I
In the	following Technical Areas:
TA 1.1	TA 5.2 \square TA 9.2 \square TA 13.2 \square TA 8.1 \boxtimes TA 10.1 \square TA 14.1 \boxtimes TA 9.1 \square TA 13.1 \boxtimes
	Ir. Vikash Kumar Singh Compliance Officer
Date of Approval 23/12/2016	Valid Till 22/12/2017
Revision	n History of the Document
26/12/2014	Initial Adoption
24/12/2015 20/01/2016	Interim Revision for office address change
23/12/2016	Annual Revision
^a India, South Africa Registered i Regd. Off: 2071/38, 2 nd Corporate off: G 49 & 50, 3 ⁿ Tel: +91 120 4373114 /	HECK (INDIA) PRIVATE LIMITED In India: U74930DL2012PTC232495 Floor, Naiwala, Karol Bagh, New Delhi - 110005 I Floor, Sector – 3, NOIDA (Uttar Pradesh) – 201301 +91 120 2520027 URL: www.carboncheck.co.in



Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
01	S2 Services Sarl	Initial Revised PDD	Version: 04.0; Dated: 10/07/2017	PP
02	S2 Services Sarl	Interim versions of the Revised PDD	Version: 04.1; Dated: 24/07/2017 Version: 04.1; Dated: 31/07/2017	PP
03	S2 Services Sarl	Revised Final PDD	Version: 04.2; Dated: 30/08/2017	PP
04	Lighting Global	 Technical Specification Sheet: Solar Lighting Kit: Solar Home Power Station with 3 Lights Bulbs and Flashlight (RNTS063)³ 	1.Version: 2017.04	PP
		 Solar Lamp: G3 Solar Power Lantern (RNG3-3W)⁴ 	2.Version: 2016.01	
05	Lighting Global	 Product Verification Letter: 1. Solar Lighting Kit: Solar Home Power Station with 3 Lights Bulbs and Flashlight (RNTS063)⁵ 	1.Reference #: ri- hpsf-2017	PP
		 Solar Lamp: G3 Solar Power Lantern (RNG3-3W)⁶ 	2.Reference #: ri- g3l-2016	
/B01/	UNFCCC	 a. CDM Validation and Verification Standard for Project Activities b. CDM Project Standard for Project Activities c. CDM Project Cycle Procedure for Project Activities 	Version: 01.0	Others
/B02/	UNFCCC	AMS-III.AR. ""Substituting fossil fuel based lighting with LED/CFL lighting systems" (version 05.0).	http://cdm.unfccc.int	Others
/B04/	UNFCCC	Registered PDD (version 03.5; Dated: 27/06/2016) and the corresponding validation report	http://cdm.unfccc.int	Others
/B05/	UNFCCC	UNFCCC website: <u>http://cdm.unfccc.int</u>	-	Others
/B06/	UNFCCC	Project Design Document form (CDM-PDD- FORM) and filling instructions	Version: 10.1	Others
/B10/	Lighting Global	Websites: https://www.lightingglobal.org	-	Others

⁵ https://www.lightingglobal.org/wp-content/uploads/2017/05/TypeApproval_ri-hpsf-kt.pdf

³ <u>https://www.lightingglobal.org/wp-content/uploads/2017/05/LG-SSS_HomePowerStationFlashlight-v3-1.pdf</u> ⁴ <u>https://www.lightingglobal.org/wp-content/uploads/2016/02/LG-SSS_ri-g3l.pdf</u>

⁶ https://www.lightingglobal.org/wp-content/uploads/2016/02/TypeApproval_ri-g3l.pdf

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

Table 1.CL from this validation

				-
CL ID	01	Section no.	D.7	Date: 19/07/2017
Description	of CL			
In section B.	2 of revised PDD, PP I	has stated the ra	ted average lifetime of project	t lamps as 2000 hours in the
justification p	provided against requir	ements of §4, 5	and 9 of the applied methodol	ogy whereas PP has opted
for §4 (b) of	the applied methodolo	av which puts the	e average lifetime of lamps at	10000 hours and the same
has been de	monstrated in accorda	nce with provisio	ons of §18 (b).	
In the light o	f above observation P	P shall explain w	why the rated average lifetime	of lamp is considered as
2000 hours?				
Project part	icinant rosponso			Date: 24/07/2017
The reted ou	icipalit response	O hours Thorow	was a mistaka in the DDD and	it has been corrected new in
	erage meunie is 10 00		vas a mislake in line PDD and	It has been corrected now in
paragraph 5	and 9. Paragraph 4 is	okay as it's not i	meant to indicate the rated ave	erage lifetime, but rather the
use of 10 00	u nours.			
Documenta	tion provided by proj	ect participant		
Provided the	revised PDD			
DOE assess	sment			Date: 01/08/2017
PP has revis	ed the PDD to correct	ly state the rate	d average lifetime of project la	amps as 10,000 hours in the
justification p	provided against requir	ements of §5 an	d 9 of the applied methodolog	y.
	- .			
Furthermore	, PP has clarified that	option (b) of §4	of the methodology (i.e., ERS	can be claimed up to seven
vears per lar	np) has been opted fo	r the project acti	vity and their manufacturer ha	as certified the project lamps
to have a rat	ed average operationa	al life of 10000 h	ours and the same has been	proven in accordance with §
18 (b) of the	applied methodology			
	applied methodology.			
Finding is c	hazol			
T mang is c				
Table 2.	CAR from this val	idation		
Table 2.	CAR from this val	lidation		Dete: 10/07/2017
Table 2. CAR ID	CAR from this val	idation Section no.	D.1	Date: 12/07/2017
Table 2. CAR ID Description	CAR from this val	idation Section no.	D.1	Date: 12/07/2017
Table 2.CAR IDDescriptionIn accordance	CAR from this val 01 of CAR ce with requirements o	idation Section no. f § 229 of CDM F	D.1 Project Standard for project ad	Date: 12/07/2017
Table 2.CAR IDDescriptionIn accordancehas not identified	CAR from this val 01 of CAR ce with requirements o tified and documented	idation Section no. f § 229 of CDM F any of the actual	D.1 Project Standard for project ac I or proposed changes to the	Date: 12/07/2017 ctivities (version 01.0), PP operation, implementation
Table 2.CAR IDDescriptionIn accordancehas not identand/or monit	CAR from this val 01 of CAR ce with requirements o tified and documented oring of the registered	idation Section no. f § 229 of CDM F any of the actuat CDM project actuate	D.1 Project Standard for project ac I or proposed changes to the tivity.	Date: 12/07/2017
Table 2.CAR IDDescriptionIn accordancehas not identiand/or moniteProject part	CAR from this val 01 of CAR ce with requirements o tified and documented oring of the registered icipant response	idation Section no. f § 229 of CDM F any of the actua CDM project act	D.1 Project Standard for project ac I or proposed changes to the tivity.	Date: 12/07/2017 ctivities (version 01.0), PP operation, implementation Date: 24/07/2017
Table 2.CAR IDDescriptionIn accordandhas not identand/or monitProject partThe core char	CAR from this val 01 of CAR with requirements of tified and documented oring of the registered icipant response ange here is the substi	idation Section no. f § 229 of CDM I any of the actua CDM project act tution of Nuru sy	D.1 Project Standard for project ac of or proposed changes to the tivity. Protem (Nuru Lights and mecha	Date: 12/07/2017 ctivities (version 01.0), PP operation, implementation Date: 24/07/2017 mical pedals recharging
Table 2. CAR ID Description In accordance has not ident and/or monit Project part The core char periodically I	CAR from this val 01 of CAR with requirements of tified and documented oring of the registered icipant response ange here is the substi ights) by solar lanterns	idation Section no. f § 229 of CDM I any of the actua CDM project act tution of Nuru sy and solar lightir	D.1 Project Standard for project ad of or proposed changes to the tivity. Postem (Nuru Lights and mechan og kits that are stand-alone so	Date: 12/07/2017 ctivities (version 01.0), PP operation, implementation Date: 24/07/2017 unical pedals recharging lutions that come with
Table 2. CAR ID Description In accordance has not ident and/or monit Project part The core char periodically lintegrated bar	CAR from this val 01 of CAR with requirements of tified and documented oring of the registered icipant response ange here is the substi ights) by solar lanterns atteries and solar pane	idation Section no. f § 229 of CDM F any of the actua CDM project act tution of Nuru sy and solar lightir ls and end users	D.1 Project Standard for project and or proposed changes to the tivity. Testem (Nuru Lights and mechan og kits that are stand-alone so is recharge directly.	Date: 12/07/2017 ctivities (version 01.0), PP operation, implementation Date: 24/07/2017 inical pedals recharging lutions that come with
Table 2. CAR ID Description In accordance has not ident and/or monit Project part The core chas periodically lintegrated bas There is no construction	CAR from this val 01 of CAR with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorir	idation Section no. f § 229 of CDM F any of the actua CDM project act tution of Nuru sy and solar lightir is and end users	D.1 Project Standard for project and or proposed changes to the tivity. Prstem (Nuru Lights and mechan og kits that are stand-alone so is recharge directly.	Date: 12/07/2017 ctivities (version 01.0), PP operation, implementation Date: 24/07/2017 onical pedals recharging lutions that come with
Table 2. CAR ID Description In accordance has not idente and/or monit Project part The core char periodically I integrated bar There is no co In the operat	CAR from this val 01 of CAR with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin tion and implementatio	idation Section no. f § 229 of CDM F any of the actua CDM project act tution of Nuru sy and solar lightir ls and end users ng n. slight changes	D.1 Project Standard for project and or proposed changes to the tivity. Testem (Nuru Lights and mechan og kits that are stand-alone so is recharge directly.	Date: 12/07/2017 ctivities (version 01.0), PP operation, implementation Date: 24/07/2017 mical pedals recharging lutions that come with CDD. They are:
Table 2. CAR ID Description In accordance has not idente and/or monit Project part The core char periodically II integrated bar There is no co In the operate - Reta	CAR from this val 01 of CAR with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin tion and implementatio iters (Village level entre	idation Section no. f § 229 of CDM F any of the actua CDM project act tution of Nuru sy and solar lightin ls and end users ng n, slight changes repreneurs – VI	D.1 Project Standard for project and or proposed changes to the tivity. Testem (Nuru Lights and mechan og kits that are stand-alone so is recharge directly. Is have been indicated in the P Tes) now sell lanterns and kits	Date: 12/07/2017 Stivities (version 01.0), PP operation, implementation Date: 24/07/2017 onical pedals recharging lutions that come with 2DD. They are: in one time and do not do the
Table 2. CAR ID Description In accordance has not idente and/or monit Project part The core char periodically II integrated bar There is no co In the operate - Retar	CAR from this val 01 of CAR with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin tion and implementatio illers (Village level entr arges anymore They	idation Section no. f § 229 of CDM F any of the actua CDM project act tution of Nuru sy and solar lightin is and end users ng n, slight changes repreneurs – VLB collect their mon	D.1 Project Standard for project and or proposed changes to the tivity. Testem (Nuru Lights and mechan og kits that are stand-alone so is recharge directly. Is have been indicated in the P Es) now sell lanterns and kits in they directly from end-users. In	Date: 12/07/2017 Stivities (version 01.0), PP operation, implementation Date: 24/07/2017 mical pedals recharging lutions that come with PDD. They are: in one time and do not do the case end-users will pay
Table 2. CAR ID Description In accordance has not idente and/or monit Project part The core chas periodically II integrated bas There is no co In the operat - Reta rech throw	CAR from this val 01 of CAR with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin tion and implementation illers (Village level entr arges anymore. They use Pay-As-YourGo (E	idation Section no. f § 229 of CDM F any of the actua CDM project act tution of Nuru sy and solar lightir is and end users ng n, slight changes repreneurs – VLE collect their mon 24YG) platform	D.1 Project Standard for project and or proposed changes to the tivity. Testem (Nuru Lights and mechan og kits that are stand-alone so is recharge directly. Is have been indicated in the P Es) now sell lanterns and kits of ey directly from end-users. In retailers can be paid unfront of	Date: 12/07/2017 Stivities (version 01.0), PP operation, implementation Date: 24/07/2017 mical pedals recharging lutions that come with PDD. They are: in one time and do not do the case end-users will pay r later by the PP_depending
Table 2. CAR ID Description In accordance has not idente and/or monite Project part The core chas periodically II integrated bas There is no co In the operate - Retar rech throw	CAR from this val 01 of CAR with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin tion and implementatio illers (Village level entr arges anymore. They ugh Pay-As-You-Go (F	idation Section no. f § 229 of CDM F any of the actua CDM project act tution of Nuru sy and solar lightir is and end users ng n, slight changes repreneurs – VLE collect their mon PAYG) platform, i	D.1 Project Standard for project and or proposed changes to the tivity. Testem (Nuru Lights and mechan og kits that are stand-alone so is recharge directly. Is have been indicated in the P Es) now sell lanterns and kits is ey directly from end-users. In retailers can be paid upfront o	Date: 12/07/2017 Stivities (version 01.0), PP operation, implementation Date: 24/07/2017 onical pedals recharging lutions that come with PDD. They are: in one time and do not do the case end-users will pay r later by the PP, depending
Table 2. CAR ID Description In accordance has not idente and/or monite Project part The core chas periodically II integrated bas There is no co In the operate - Retar rech throo on the	CAR from this val 01 of CAR with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin- tion and implementation illers (Village level entr arges anymore. They ugh Pay-As-You-Go (F heir specific arrangeme	idation Section no. (Section no.) (Section no.) (Section no.) (Section no.) (Section of CDM Project accomposite of the actual CDM project accomposite of Nuru system and solar lighting is and end users and solar light changes and solar hand the section of Nuru system act protect the section of Nuru system act protect the section of Nuru system activity of the section	D.1 Project Standard for project ad of or proposed changes to the tivity. Testem (Nuru Lights and mechan og kits that are stand-alone so is recharge directly. Is have been indicated in the P Es) now sell lanterns and kits is bey directly from end-users. In retailers can be paid upfront o	Date: 12/07/2017 stivities (version 01.0), PP operation, implementation Date: 24/07/2017 mical pedals recharging lutions that come with PDD. They are: in one time and do not do the case end-users will pay r later by the PP, depending
Table 2. CAR ID Description In accordance has not idente and/or monite Project part The core chas periodically II integrated bas There is no co In the operate - Retar rech throw on the Documentat	CAR from this val 01 of CAR ce with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin- tion and implementation illers (Village level entri arges anymore. They ugh Pay-As-You-Go (F neir specific arrangementation in provided by proj	idation Section no. f § 229 of CDM F any of the actua CDM project act tution of Nuru sy s and solar lightir ils and end users ng n, slight changes repreneurs – VLE collect their mon PAYG) platform, a ect participant	D.1 Project Standard for project ac of or proposed changes to the tivity. Pattern (Nuru Lights and mechan og kits that are stand-alone so is recharge directly. Is have been indicated in the P Es) now sell lanterns and kits is bey directly from end-users. In retailers can be paid upfront o	Date: 12/07/2017 etivities (version 01.0), PP operation, implementation Date: 24/07/2017 unical pedals recharging lutions that come with PDD. They are: in one time and do not do the case end-users will pay r later by the PP, depending
Table 2. CAR ID Description In accordance has not idente and/or monite Project part The core char periodically II integrated bar There is no co In the operate - Retar rech throwo on the Documentar Provided the	CAR from this val of of CAR e with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin tion and implementatio tilers (Village level entr arges anymore. They ugh Pay-As-You-Go (F neir specific arrangement tion provided by proj revised PDD	idation Section no. f § 229 of CDM F any of the actua CDM project act tution of Nuru sy s and solar lightir is and end users ng n, slight changes repreneurs – VLE collect their mon PAYG) platform, f ect participant	D.1 Project Standard for project ac of or proposed changes to the tivity. Instem (Nuru Lights and mechan og kits that are stand-alone so is recharge directly. Is have been indicated in the P Es) now sell lanterns and kits is ey directly from end-users. In retailers can be paid upfront o	Date: 12/07/2017 tivities (version 01.0), PP operation, implementation Date: 24/07/2017 inical pedals recharging lutions that come with PDD. They are: in one time and do not do the case end-users will pay r later by the PP, depending
Table 2. CAR ID Description In accordance has not idented and/or monite Project part The core char periodically II integrated bar There is no co In the operated - Retar rech throwo on the Documentated Provided the DOE assess	CAR from this val of of CAR e with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin- tion and implementatio tilers (Village level entr arges anymore. They ugh Pay-As-You-Go (F heir specific arrangement tion provided by proj revised PDD sment	idation Section no. (Section no.) (Section no.) (Section no.) (Section no.) (Section of CDM F any of the actual CDM project act (Section of Nuru syses) (Section of Nuru syses	D.1 Project Standard for project ac of or proposed changes to the tivity. Instem (Nuru Lights and mechan og kits that are stand-alone so is recharge directly. Is have been indicated in the P Es) now sell lanterns and kits is ey directly from end-users. In retailers can be paid upfront o	Date: 12/07/2017 etivities (version 01.0), PP operation, implementation Date: 24/07/2017 inical pedals recharging lutions that come with PDD. They are: in one time and do not do the case end-users will pay r later by the PP, depending Date: 01/08/2017
Table 2. CAR ID Description In accordance has not identian and/or monite Project part The core char periodically lintegrated bar Integrated bar There is no control In the operate Provided the DOE assess In the revised	CAR from this val of of CAR e with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin tion and implementatio tilers (Village level entr arges anymore. They ugh Pay-As-You-Go (F heir specific arrangement tion provided by proj revised PDD sment d PDD, the changes re	idation Section no. (Section no.) (Section no.) (Section no.) (Section no.) (Section of CDM F any of the actual CDM project act (Section of Nuru syses) (Section of Nuru syses	D.1 Project Standard for project ac of or proposed changes to the tivity. Instem (Nuru Lights and mechan og kits that are stand-alone so is recharge directly. Is have been indicated in the P Es) now sell lanterns and kits is ey directly from end-users. In retailers can be paid upfront o	Date: 12/07/2017 etivities (version 01.0), PP operation, implementation Date: 24/07/2017 inical pedals recharging lutions that come with PDD. They are: in one time and do not do the case end-users will pay r later by the PP, depending Date: 01/08/2017 well documented. However,
Table 2. CAR ID Description In accordance has not idente and/or monit Project part The core char periodically II integrated bar There is no content In the operatent - Retar rech throw on the Documentatent Provided the DOE assess In the revised the changes	CAR from this val of of CAR ce with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin- tion and implementatio tilers (Village level entr arges anymore. They ugh Pay-As-You-Go (F neir specific arrangement ion provided by proj revised PDD sment d PDD, the changes re- related to distribution a	idation Section no. (Section no.) (Section no.) (Section no.) (Section no.) (Section of CDM F any of the actual CDM project act (Section of Nuru syses) (Section of Nuru syses	D.1 Project Standard for project ac of or proposed changes to the tivity. Protect (Nuru Lights and mechan og kits that are stand-alone so is recharge directly. Is have been indicated in the P Es) now sell lanterns and kits is ey directly from end-users. In retailers can be paid upfront of protect of the paid upfront of the paid upfront of the paid upfront of the paid upfront of the p	Date: 12/07/2017 etivities (version 01.0), PP operation, implementation Date: 24/07/2017 inical pedals recharging lutions that come with PDD. They are: in one time and do not do the case end-users will pay r later by the PP, depending Date: 01/08/2017 vell documented. However, ps has not been identified
Table 2. CAR ID Description In accordance has not idente and/or monit Project part The core char periodically lintegrated bar There is no content In the operate - Retar rech throw on th Documentate Provided the DOE assess In the revised the changes and docume	CAR from this val of of CAR e with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin- tion and implementatio tilers (Village level entr arges anymore. They ugh Pay-As-You-Go (F neir specific arrangement tion provided by proj revised PDD sment d PDD, the changes re- related to distribution a nted.	idation Section no. (Section no.) (Section no.) (Section no.) (Section no.) (Section of CDM F any of the actual CDM project act (Section of Nuru sy (Section of Nuru s	D.1 Project Standard for project ac of or proposed changes to the tivity. Protect (Nuru Lights and mechan og kits that are stand-alone so is recharge directly. Is have been indicated in the P Es) now sell lanterns and kits of ey directly from end-users. In retailers can be paid upfront of protect of the paid upfront of the paid upfront of the paid upfront of the paid upfront of the paid upfront of the paid upfront of the paid upfront of the p	Date: 12/07/2017 etivities (version 01.0), PP operation, implementation Date: 24/07/2017 inical pedals recharging lutions that come with PDD. They are: in one time and do not do the case end-users will pay r later by the PP, depending Date: 01/08/2017 vell documented. However, ps has not been identified
Table 2. CAR ID Description In accordance has not idente and/or monite Project part The core char periodically II integrated bar There is no co In the operate - Retar rech throw on the Documentate Provided the DOE assesses In the revised the changes and documented	CAR from this val of of CAR e with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin- tion and implementatio tilers (Village level entr arges anymore. They ugh Pay-As-You-Go (F heir specific arrangement tion provided by proj revised PDD sment d PDD, the changes re- related to distribution a nted.	idation Section no. (Section no.) (Section no.) (Section no.) (Section no.) (Section of CDM F any of the actual CDM project act (Section of Nuru syses) (Section of Nuru syses	D.1 Project Standard for project ac of or proposed changes to the tivity. Participate and mechan of kits that are stand-alone so is recharge directly. Is have been indicated in the P Es) now sell lanterns and kits of ey directly from end-users. In retailers can be paid upfront of project lam	Date: 12/07/2017 etivities (version 01.0), PP operation, implementation Date: 24/07/2017 inical pedals recharging lutions that come with PDD. They are: in one time and do not do the case end-users will pay r later by the PP, depending Date: 01/08/2017 vell documented. However, ps has not been identified
Table 2. CAR ID Description In accordance has not idente and/or monite Project part The core chan periodically II integrated ban There is no co In the operate - Reta rech throw on the Documentate Provided the DOE assesses In the revised the changes and docume Finding is no	CAR from this val 01 of CAR ce with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin- tion and implementation tiers (Village level entra arges anymore. They ugh Pay-As-You-Go (F neir specific arrangement tion provided by proj revised PDD sment d PDD, the changes re- related to distribution and nted. t closed.	idation Section no. f § 229 of CDM F any of the actua CDM project act tution of Nuru sy and solar lightir is and end users ng n, slight changes repreneurs – VLE collect their mon PAYG) platform, f ent. ect participant elated to the char and implementat	D.1 Project Standard for project ac of or proposed changes to the tivity. Particle of the stand-alone so is recharge directly. Is have been indicated in the P Es) now sell lanterns and kits is ey directly from end-users. In retailers can be paid upfront of project lam	Date: 12/07/2017 Stivities (version 01.0), PP operation, implementation Date: 24/07/2017 onical pedals recharging lutions that come with PDD. They are: in one time and do not do the case end-users will pay r later by the PP, depending Date: 01/08/2017 vell documented. However, ps has not been identified
Table 2. CAR ID Description In accordance has not idente and/or monite Project part The core chan periodically II integrated ban There is no co In the operate - Retan rechn throw on the Documentate Provided the DOE assess In the revised the changes and docume Finding is no Project part	CAR from this val 01 of CAR with requirements of tified and documented oring of the registered icipant response ange here is the substi- ights) by solar lanterns atteries and solar pane change in the monitorin ition and implementation illers (Village level entr arges anymore. They ugh Pay-As-You-Go (F neir specific arrangement ion provided by proj revised PDD sment d PDD, the changes re- related to distribution an inted. t closed. icipant response	idation Section no. f § 229 of CDM F any of the actua CDM project act tution of Nuru sy and solar lightir is and end users ng n, slight changes repreneurs – VLE collect their mon PAYG) platform, f ent. ect participant elated to the char and implementat	D.1 Project Standard for project and or proposed changes to the tivity. Pastem (Nuru Lights and mechan og kits that are stand-alone so is recharge directly. Is have been indicated in the P Es) now sell lanterns and kits is ey directly from end-users. In retailers can be paid upfront o	Date: 12/07/2017 Stivities (version 01.0), PP operation, implementation Date: 24/07/2017 mical pedals recharging lutions that come with PDD. They are: in one time and do not do the case end-users will pay r later by the PP, depending Date: 01/08/2017 vell documented. However, ps has not been identified Date: 26/08/2017

We have explained the distribution mechanism in the PDD. In page 2 (section A.1) it's stated:

"Entrepreneurs will be identified and selected based on location, local experience, capacity (i.e. management and financial capacity) to implement the activities (i.e. selling project solar lanterns and solar lighting kits), credit history and membership of groups (e.g. cooperatives and microfinance organized lending groups). Entrepreneurs can be any person willing to sell project's products, such as individuals, NGOs, Associations, Cooperative, small shop owners in rural area. The staff of S2 available in the field will provide training to prospective entrepreneurs. The training sessions will cover all the necessary information for the entrepreneurs to successfully operate their own micro franchises, taking into account the specific needs of each entrepreneur.

The solar lanterns and solar lighting kits will be bought in cash by end users through S2 trained entrepreneurs, or directly from S2's staff, in cash or using Pay As You Go systems whereby end users pay periodically a small amount of money against energy credits."

This is how we plan to do the distribution, which is changing slightly from the previous system where all the distribution was focused on the so called Village Level Entrepreneur

Documentation provided by project participant

Provided the revised PDD

DOE assessment

Date: 31/08/2017

In the revised PDD, the changes with regards to distribution and implementation mechanism of project lamps have been identified and documents.

Hence, in accordance with requirements of § 229 of CDM Project Standard for project activities (version 01.0), PP has identified and documented any of the actual or proposed changes to the operation, implementation of the registered CDM project activity.

Finding is closed.

	Ocetien ne		Dete: 40/07/0047
	Section no.	D.1	Date: 12/07/2017
Description of CAR			
In accordance with requirements of	^r § 230 CDM Pro	oject Standard for project activ	vities (version 01.0), PP has
not provided a summary of the char	nges, including ti	he reasons for the changes an	nd any additional information
relating to the changes to the PDD.			
Project participant response			Date: 24/07/2017
A summary of changes has now be	en included in A	opendix 7	
Documentation provided by proje	ect participant		
Provided the revised PDD			
DOE assessment			Date: 01/08/2017
The summary of the changes provi	ded in Appendix	7 of the revised PDD, is inco	mplete with regards to lack
of information on changes in project	t lamp distributio	n and implementation mechar	nism.
		·	
Furthermore, the changes to the reg	gistered PDD ha	ve not been clearly classified	as either correction, change
to project design or any other applic	able type to whi	ch these changes belong.	_
Finding is not closed.			
Project participant response			Date: 26/08/2017
Corrections have now been made in	the PDD to inc	lude distribution mechanism	
Documentation provided by proje	ect participant		
Provided the revised PDD			
DOE assessment			Date: 31/08/2017
Appendix 7 of PDD has been re	vised to clearly	classify the changes to the	registered PDD as either
correction, change to project design	or any other ap	plicable type to which these ch	nanges belong. The same is
in accordance with requirements of	§ 230 CDM Pro	ect Standard for project activit	ties (version 01.0).
,	S -,		` '
Finding is closed.			

Date: 31/07/2017

Date: 01/08/2017

Project participant response

Done

Documentation provided by project participant

PDD in new form provided

DOE assessment

The revised PDD submitted to DOE uses the valid/current version of the CDM-PDD-FORM.

Finding is closed.

CAR ID	04	Section no.	D.1	Date: 18/07/2017
Descripti	on of CAR			
In accord	ance with requirements c d PDD has not reporte	f § 242 of CDM I d the impacts of	Project Standard for Project A	ctivities (version 01.0), PP in naes to the reaistered CDM
project ac	tivity on the following:			
(a) The	applicability and appli	cation of the ap	plied methodologies and, wh	nere applicable, the applied
(b) The	compliance of the mo	nitoring plan with	h the applied methodologies	and, where applicable, the
(c) The	level of accuracy and	completeness in	the monitoring of the projec	t activity compared with the
req (d) The	uirements contained in the additionality of the proje	ne registered mor ect activity;	nitoring plan;	
(e) The	scale of the project acti	vity.		
Project p	articipant response			Date: 24/07/2017
There are	no impacts related to the	e changes since a f project activity (applicability, compliance of mo	onitoring plan, level of
Documer	tation provided by pro	iect participant		
Summary	of changes in CDM proje	ect		
DOE ass	essment			Date: 01/08/2017
The com	liance with requirements	of § 242 of CDM	Project Standard for Project	Activities (version 01.0) has
not been	provided in the revised P	DD.	·,··· · · · · · · · · · · · · · · · · ·	
Finding n	t closed.			
Project p	articipant response			Date: 26/08/2017
A table ha	s been added to Appenc andard for Project Activit	ix 7 of the PDD to ies (version 01.0)	o show compliance with requi	rements of § 242 of CDM
Documer	tation provided by pro	ject participant		
Provided	he revised PDD			· · ·
DOE ass	essment			Date: 31/08/2017
Appendix	7 of the PDD has been	revised to provi	de information on the impact	s of the proposed or actual
changes i	o the registered CDM pro	oject activity on tr	ie following:	are applicable the applied
(a) Inte sta	dardized baselines with	which the project	t activity has been registered:	iere applicable, the applied
(b) The	compliance of the mo	nitoring plan with	h the applied methodologies	and, where applicable, the
ap _i (c) The	level of accuracy and	romnleteness in	the monitoring of the project	t activity compared with the
(c) m	irements contained in th	e registered mor	nitoring plan.	r activity compared with the
(d) The	additionality of the proje	ect activity:	inoring pian,	
(e) The	scale of the project activ	vity.		
		-		
The same (version 0	is in accordance with t 1.0).	he requirements	of § 242 of CDM Project St	andard for Project Activities
Finding i	s closed.			
·				
CAR ID	05	Section no.	D.7	Date: 18/07/2017
Descripti	on of CAR			
In section	B.2 of the revised PDD.	the proposed dis	tribution method of proiect lan	nps has not been provided in

Project participant response A distribution method has been provided

order to justify the fulfilment of requirements of §8 of the applied methodology.

Documentation provided by project participant

Date: 24/07/2017

Revised PDI)			
DOE assess	ment			Date: 01/08/2017
In section B	2 of the revised PD	D the proposed dist	tribution method of proj	ect lamps has been provided by
PP to justify t	the fulfilment of reg	uirements of \$8 of th	he applied methodology	
				-
Finding is c	losed.			
	06	Section no	D 7	Date: 18/07/2017
Description	of CAP	Section no.	0.1	Date: 10/01/2017
	2 of the revised PC	D the DRT for the	project lamps has not h	poor provided in order to justify the
fulfillmont of	2 OF THE TEVISEU FL	(f) of the applied m	project lamps has hot c	
Project parti	inipant records		eniodology.	Data: 24/07/2017
The DPT for	the project lomps k	non hoon provided		Date. 24/01/2017
Decumental	the project lamps r	las been provided		
Documental Documental	lion provided by p	broject participant		
Revised PDL)			Dete: 04/00/0047
DUE assess	iment Destations and DD		naio at la mara la cale a car	
In section B.	2 of the revised PD	D, the DBT for the p	project lamps has been	provided by PP to justify the
fulliment of r	equirements of 39	(i) of the applied me	ethodology.	
Finding is a				
Finding is c	losea.			
CAR ID	07	Section no.	D.7	Date: 18/07/2017
Description	of CAR			
In section B	.2 of the revised F	PDD, the justification	n against the fulfillmen	t of requirements of §9 (h) of the
applied meth	odology has not be	en provided.		
Project part	icipant response			Date: 24/07/2017
The informat	ion has been provi	ded		
Documentat	ion provided by p	project participant		
Revised PDL	D provided			
DOE assess	ment			Date: 01/08/2017.
In section B.2	2 of the revised PD	D, justification provid	ded for fulfilment of req	uirements of §9 (h) of the applied
methodology	is inappropriate to	the applicability crite	eria of methodology. He	ence, the justification shall be
revised.				
Finding not c	losed.			
Project part	icipant response			Date: 26/08/2017
Revision don	e in the PDD			
Documentat	ion provided by p	project participant		
Revised PDD) provided			
DOE assess	ment			Date: 31/08/2017
Section B.2 d	of the PDD has bee	en revised to provide	an appropriate and cor	rrect justification against the
fulfilment of r	equirements of §9	(h) of the applied me	ethodology.	, .
Finding is c	losed.			
CAR ID	08	Section no.	D.7	Date: 18/07/2017
Description	of CAR			
In section B	2 of the revised PC	D the type of batte	rv stated for justifying t	he fulfillment of requirements of 89
(d) of the an	lied methodology i	is incorrect	ry olalou for juolitying l	
Project part	icinant response			Date: 24/07/2017
The informat	ion has heen corre	cted		Date: 24/01/2017
Documentat	tion provided by r	voiect narticinant		
Revised DDI				
	ment			Date: 01/08/2017

In section B.2 of the revised PDD, the type of battery has now been correctly stated to justify the fulfilment of requirements of §9 (d) of the applied methodology.

Finding is closed.

CAR ID	09	Section no.	N/A (editorial findings)	Date: 18/07/2017
--------	----	-------------	--------------------------	------------------

CDM-PRCV-FOR
Description of CAR
In section B.7.2 of the revised PDD, a blank column has been provided in the table to be used for sampling.
Furthermore, page 23 of the same section refers to Nuru Lights.
Project participant response Date: 24/07/2017
Corrected. For sampling, we are considering now only the date the light is sold to end-user. The date lights
are given to retailers are not important
Nuru lights have been deleted
Documentation provided by project participant
Revised PDD
DOE assessment Date: 01/08/2017
In section B.7.2 of the revised PDD, the blank column provided in the table for sampling has been deleted.
Eurthermore, reference to Nuru Lighte has also been deleted
Furthermore, reference to Nuru Lights has also been deleted.
Finding is closed
CAP ID 10 Section no D1 Date: 01/08/2017
Description of CAR
In accordance with the instructions for completing CDM-PDD-EORM Section A 1 of the revised PDD doesn'
1 Indicate the small-scale project type (Type I Type II and/or Type III) applicable to the project activity
accordance with the project standard.
2. If applicable, indicate and demonstrate that the project activity qualifies for a microscale project type
(Type I, Type II and/or Type III) in accordance with the project standard.
3. If there is more than one component in the project activity, indicate the small-scale or microscale proje
type for each component separately.
Project participant response Date: 26/08/2017
Points 1. has been considered and the PDD has been changed accordingly
The project activity is not a microscale and has only one component, so points 2. and 3. are not applicable
Documentation provided by project participant
Revised PDD provided
DOE assessment Date: 31/08/2017
In accordance with the instructions for completing CDM-PDD-FORM, Section A.1 of the PDD has bee
revised to indicate that the project qualifies as type III project activity with emission reductions not exceeding
60 kt CO ₂ e per year in any year of the crediting period.
The same is in accordance with the instructions for according ODM DDD FODM
I he same is in accordance with the instructions for completing CDM-PDD-FORM.
Finding is closed
Finding is closed.
Finding is closed.
CAR ID 11 Section no. D.1 Date: 01/08/2017 Description of CAP
CAR ID 11 Section no. D.1 Date: 01/08/2017 Description of CAR Section A.6 of the revised PDD has not been completed in accordance with the instructions for completing
CAR ID 11 Section no. D.1 Date: 01/08/2017 Description of CAR Section A.6 of the revised PDD has not been completed in accordance with the instructions for completin CDM-PDD-FORM

The section has now been completed Documentation provided by project participant

Revised PDD provided

DOE assessment

Date: 31/08/2017 Section A.6 of the PDD has been revised in accordance with the instructions for completing CDM-PDD-FORM.

Finding is closed.

CAR ID	12	Section no.	D.1	Date: 01/08/2017
Description	of CAR			
Section B.2 c	of the revised PDD ha	s not been com	pleted in accordance with the	instructions for completing
CDM-PDD-F	ORM.			
Project partie	cipant response			Date: 26/08/2017

Instructions have now been followed in the PDD
--

Г

Documentat	ion provided by proje	ect participant	
Revised PDD) provided		
DOE assess	ment		Date: D31/08/2017
Section B.2 of	of the PDD has been r	evised to indicate that th	at the project qualifies as type III project activity
with emissior	reductions not exceed	ding 60 kt CO₂e per year i	in any year of the crediting period.
		0	
The same is	in line with the instructi	ons for completing CDM-	PDD-FORM.
Finding is cl	osed.		
Table 3.	FAR from this vali	dation	
Table 3. FAR ID	FAR from this valie	dation Section no.	Date: DD/MM/YYYY
Table 3. FAR ID Description	FAR from this valie xx of FAR	dation Section no.	Date: DD/MM/YYYY
Table 3. FAR ID Description	FAR from this valie xx of FAR	dation Section no.	Date: DD/MM/YYYY
Table 3. FAR ID Description Project parti	FAR from this value xx of FAR cipant response	dation Section no.	Date: DD/MM/YYYY Date: DD/MM/YYYY
Table 3. FAR ID Description Project parti	FAR from this value xx of FAR cipant response	dation Section no.	Date: DD/MM/YYYY Date: DD/MM/YYYY
Table 3. FAR ID Description Project parti	FAR from this value xx of FAR cipant response	dation Section no.	Date: DD/MM/YYYY Date: DD/MM/YYYY
Table 3. FAR ID Description Project parti	FAR from this value xx of FAR cipant response ion provided by proje	dation Section no. ctual	Date: DD/MM/YYYY Date: DD/MM/YYYY
Table 3. FAR ID Description Project parti Documentat	FAR from this value xx of FAR cipant response ion provided by proje	dation Section no.	Date: DD/MM/YYYY Date: DD/MM/YYYY Date: DD/MM/YYYY

Document information

- - - - -

 Version
 Date
 Description

 01.0
 23 March 2015
 Initial publication.

 Decision Class: Regulatory Document Type: Form Business Function: Registration Keywords: post-registration change, project activities, validation report