CLEAN DEVELOPMENT MECHANISM
SMALL-SCALE PROGRAM ACTIVITY DESIGN DOCUMENT FORM (CDM-SSC-CPA-DD)
Version 01

CONTENTS

A. General description of CDM programme activity (CPA)

B. Eligibility of CPA and Estimation of Emission Reductions

C. Environmental Analysis

D. Stakeholder comments

Annexes

Annex 1: Contact information on entity/individual responsible for the CPA

Annex 2: Information regarding public funding

Annex 3: Baseline information

Annex 4: Monitoring plan

NOTE:

(i) This form is for submission of CPAs that apply a small scale approved methodology using the provision of the proposed small scale CDM PoA.

(ii) The coordinating/managing entity shall prepare a CDM Small Scale Programme Activity Design Document (CDM-SSC-CPA-DD)[1,2] that is specified to the proposed PoA by using the provisions stated in the SSC PoA DD. At the time of requesting registration the SSC PoA DD must be accompanied by a CDM-SSC CPA-DD form that has been specified for the proposed SSC PoA, as well as by one completed CDM-SSC CPA-DD (using a real case). After the first CPA, every CPA that is added over time to the SSC PoA must submit a completed CDM-SSC CPA-DD.

---

[1] The latest version of the template form CDM-CPA-DD is available on the UNFCCC CDM web site in the reference/document section.

[2] At the time of requesting validation/registration, the coordinating managing entity is required to submit a completed CDM-POA-DD, the PoA specific CDM-CPA-DD, as well as one of such CDM-CPA-DD completed (using a real case).

SECTION A. General description of small scale CDM programme activity (CPA)

A.1. Title of the small-scale CPA:

>>

Title: Barefoot Power Lighting Programme [insert acronym of CPA entity]-[insert country code]-[insert number]
Version: version [xx]
Date: [dd/mm/yyyy]

A.2. Description of the small-scale CPA:

>>

The proposed small-scale CPA forms part of the Barefoot Power Lighting Programme. The small-scale CPA will distribute renewable energy based LED lighting systems to households and small businesses in [country or geographical area]. The renewable energy based system used will be powered by [insert types, e.g. solar PV]. Through the introduction of LED-based lighting systems the project activity will replace [insert types of portable fossil fuel based lamps]. As such, the CPA is expected to achieve emission reductions of [insert amount] tCO2e per year. This is below the threshold of 60ktC02 for AMS III.AR.

The [entity/individual] responsible for the implementation of the CPA will be [insert name]. [insert name] will use the following method for distributing project lamps: [insert description on distribution methods].

[insert description how the CPA will ensure that lamp owners will have access to replacement batteries of comparable quality – *only applicable in case the CPA will distribute project lamps with a seven-year lifetime*].

All LED project lamps with a seven-year Lamp Effective Useful Life will be designated a serial number and a CPA code, which will be marked on their casing. The serial numbers and CPA codes will uniquely identify each LED project lamp within the CPA boundary.

The CPA will distribute the following types of project lamps:

[Name of product #1] (*copy table for each product*)	
Lamp wattage (Watts)	[insert value]
Illuminance (Lux)	[insert value]
Lamp rated lifetime (hours)	[insert value]
Rated capacity of renewable energy equipment (Watts)	[insert value]
Type of battery (e.g. NiMH, Lead-Acid, Li-ion)	[insert type]
Rated capacity of the battery (Ampere Hours)	[insert value]
Type of charge controller (e.g. active or passive)	[insert type]
Autonomous Time (hours)	[insert value]
Daily Burn Time (hours)	[insert value]
Maximum monthly solar fraction (if applicable)	[insert value]
Minimum monthly solar fraction (if applicable)	[insert value]
Average monthly solar fraction (if applicable)	[insert value]
Physical protection against weather impacts	[insert description]

Lamp Effective Useful Life	[insert years]

The small-scale CPA will contribute to sustainable development in the following way:

- *Impact on income generating activities:* several studies in developing countries show that access to proper lighting has significant positive impacts on productivity broadly and income-generating activities specifically.[3] Through the introduction of high-quality lighting products, the project activity is expected to make a positive contribution to income generating activities in [insert country]. [if available insert statistic for the country to illustrate how this contribution to sustainable development is relevant]
- *Impact on household expenditure:* The introduction of high-quality lighting products is expected to reduce the cost burden on households and Small and Medium Enterprises (SMEs) of purchasing fossil fuels on a recurring basis. In Africa this cost burden is often more substantial, with Lighting Africa research and other estimates showing that African households face recurring expenditures on fuels ranging between 10 and 25% of their monthly household budgets.[4] [if available insert statistic for the country to illustrate how this contribution to sustainable development is relevant]
- *Impact on education:* The introduction of high-quality lighting products is expected to increase the amount of time children will spend on studying and reading. Quantitative surveys carried out by the Lighting Africa programme in a number of African countries have indicated that education of children would be the main thing that would improve with better lighting.[5] [if available insert statistic for the country to illustrate how this contribution to sustainable development is relevant]
- *Impact on health and safety:* The introduction of high-quality lighting products is expected to result in a reduction of chronic illnesses which are caused by indoor air pollution and risks of injury caused by the flammable nature of fuels used. Kerosene lamps emit fine particles that are a major source of air pollution because they quickly become lodged in the bronchial system and can result in chronic disease and death. Burning a litre of kerosene emits 51 micrograms of PM10 per hour, which is just above the World Health Organization 24-hour mean PM10 standard of 50 micrograms per cubic meter.[6] Since these particles may not disperse easily in the close quarters of a typical household or small business, burning a lamp indoors for just four hours can result in concentrations of toxic particles several times higher than the World Health Organization standard.[7] In addition to toxic fumes from kerosene lamps, the danger of the hazard of fire and ensuing risk to life and property is substantial. A study conducted in Benin between 2002 and 2006 by the University of Benin showed that more than 50% of burn victims brought into

[3] Cabraal, A., D.F. Barnes, S.G. Agarwal (2005) *Productive Uses of Energy for Rural Development.*

[4] Lighting Africa (2010) *Solar Lighting for the Base of the Pyramid – Overview of an Emerging Market*

[5] See for example: Lighting Africa (2008) *Market Assessment Results. Quantitative Assessment – Ethiopia*; Lighting Africa (2008) *Market Assessment Results. Quantitative Assessment – Tanzania*; Lighting Africa (2008) *Market Assessment Results. Quantitative Assessment – Kenya*; Lighting Africa (2008) *Market Assessment Results. Quantitative Assessment - Ghana*

[6] Lighting Africa (2010) *Solar Lighting for the Base of the Pyramid – Overview of an Emerging Market*

[7] World Bank (2008) *The Welfare Impact of Rural Electrification: A Reassessment of Costs and Benefits.* An IEG Impact Evaluation

hospitals were victims of fires caused by overturned kerosene lamps.[8] Similarly, a Nigerian study has concluded that thousands of Nigerians are injured each year by kerosene lamp explosions, with a 13% fatality rate in such incidents.[9] [if available insert statistic for the country to illustrate how this contribution to sustainable development is relevant]

A.3. Entity/individual responsible for the small-scale CPA:

>>
The name and contact details of the entity/individual responsible for the CPA are:

Name: [insert name of entity]
Postal Address: [insert postal address]
Email: [insert email]
Tel: [insert telephone number]
Website: [insert website]

A.4. Technical description of the small-scale CPA:

A.4.1. Identification of the small-scale CPA:

A.4.1.1. Host Party:

>>[insert name of Host Party]

A.4.1.2. Geographic reference or other means of identification allowing the unique identification of the small-scale CPA (maximum one page):

>>
The CPA will distribute project lamps all over [insert name of the Host Country]. Figure [x] shows a map of [insert name of Host Country] indicating the [insert geographical units] included within the geographical boundary of the proposed CPA.

[insert map]

Project lamps will carry a serial number to uniquely identify the project lamp and a CPA code to clearly identify the project lamps with the CPA. The CPA code for the proposed CPA will be BFP-[insert acronym of CPA entity]-[insert country code]-[insert CPA number]. When purchasing a project lamp, the recipient will fill in a warranty card, receipt or other documentation, which will include the serial number and CPA-code of the project lamp as well as name, location and contact details of the recipient. As such, the coordinating/managing entity will be able to uniquely identify project lamps with the proposed CPA.

The name and contact details of the entity/individual responsible for the CPA are:

[8] Dongo, A.E., E.E. Irekpita, L.O. Oseghale, C.E. Ogbebor, C.E. Iyamu and J.E Onuminya Snr (2007) "A five-year review of burn injuries in Irrua", *BMC Health Services Research*, **7**:171.

[9] Oduwole, E.O., O.O. Odusanya, A.O. Sani, A. Fadeyibi (2003) "Contaminated Kerosene Burn Disasters in Lagos, Nigeria", *Annals of Burns and Fire Disasters.* 16(4).

Name: [insert name of entity]
Postal Address: [insert postal address]
Email: [insert email]
Tel: [insert telephone number]
Website: [insert website]

A.4.2. Duration of the small-scale CPA:

A.4.2.1. Starting date of the small-scale CPA:

>>
[dd/mm/yyyy]

According to the *Glossary of CDM Terms* (version 05), the starting date of a CDM Programme of Activity is "the earliest date at which either the implementation, construction or real action of a programme activity begins. The starting date of the CPA cannot be prior to the commencement of validation of the programme of activities". In line with this definition, the start date of the proposed CPA will be the date on which the CPA entity distributes the first project lamps under the CPA in [insert country] and will only be after the date the PoA-DD is published for global stakeholder consultation.

A.4.2.2. Expected operational lifetime of the small-scale CPA:

>>
[insert number] years ([insert number] months)

A.4.3. Choice of the crediting period and related information:

[insert *renewable crediting period* or *fixed crediting period*]

A.4.3.1. Starting date of the crediting period:

>>
[dd/mm/yyyy]

A.4.3.2. Length of the crediting period, first crediting period if the choice is renewable CP:

>>
[insert number] years ([insert number] months)

A.4.4. Estimated amount of emission reductions over the chosen crediting period:

>>

Years	Estimation of Annual Emission Reductions in tonnes of CO2
[insert year]	[insert annual emission reductions]
[insert year]	[insert annual emission reductions]
[insert year]	[insert annual emission reductions]
[insert year]	[insert annual emission reductions]
[insert year]	[insert annual emission reductions]

[insert year]	[insert annual emission reductions]
[insert year]	[insert annual emission reductions]
[insert year]	[insert annual emission reductions]
[insert year]	[insert annual emission reductions]
[insert year]	[insert annual emission reductions]
Total estimated reductions (tonnes of CO2 e)	**[insert total emission reductions]**
Total number of crediting years	**[insert number of crediting years]**
Annual average of the estimated reductions over the crediting period	**[insert annual average emission reductions]**

A.4.5. Public funding of the CPA:

>> The proposed CPA [has/has not] received any public funding from [the following] Parties included in Annex I of the UNFCCC.

[Information on sources of public funding for the project activity are provided in Annex 2]

A.4.6. Information to confirm that the proposed small-scale CPA is not a de-bundled component

>>

In line with paragraph 10 of the Guidelines on Assessment of Debundling for SSC Project Activities (EB 54, Annex 13, version 03), the CPAs in the PoA are exempted from performing a de-bundling check because the emission reductions achieved by each independent subsystem (i.e. each LED based lighting system) is not larger than 1% of the threshold defined by the methodology used: the threshold for AMS III.AR is 60,000 tCO2/year and 1% of 60,000 tCO2/year equals 600 tCO2/year. The emissions per project lamp equal [insert value] tCO2 per year, which is far below the threshold of 600 tCO2/year.

A.4.7. Confirmation that small-scale CPA is neither registered as an individual CDM project activity or is part of another Registered PoA:

>>

The proposed small-scale CPA is neither registered as an individual CDM project activity nor is it part of another Registered PoA.

SECTION B. Eligibility of small-scale CPA and Estimation of emissions reductions

B.1. Title and reference of the Registered PoA to which small-scale CPA is added:

>>

Title: Barefoot Power Lighting Programme
Reference: [insert CDM reference]

B.2. Justification of the why the small-scale CPA is eligible to be included in the Registered PoA:

>>

#	Eligibility criteria	Justification
1	The geographical boundary of the CPA including any time-induced boundary shall be consistent with the geographical boundary set in the PoA	The CPA's distribution plan involves distribution of its products within [insert country]. This is consistent with the geographical boundary set in the PoA.
2.	The CPA has measures in place to avoid double counting	
2a.	Project lamps distributed by the CPA will be marked for clear and unique identification with the project activity	Project lamps distributed by the CPA have a serial number and CPA code marked on their casing.
2b.	The CPA has not yet been included in another Programme of Activities or has not yet been registered as a single CDM project activity	The CPA implementing entity has signed an agreement with the CME confirming that the CPA has not yet been included in another Programme of Activities or has not yet been registered as a single CDM project activity.
3	The project lamps and charging systems will at least meet the minimum technical and operational requirements as specified in version 01 of AMS III.AR Substituting fossil fuel based lighting with LED lighting systems.The CPA shall also comprise of activities that replace portable fossil fuel based lamps with LED-based lighting systems in residential and non-residential applications	
3a	The project lamps shall have a useful lifetime of at least 5,000 hours that will be certified by manufacturer or responsible vendor as the time at which the lamp's initial output declines by no more than 30% ;	Project lamps that will be distributed under the CPA have a rated average life of at least 5,000 hours as certified by manufacturer as the time at which the lamp's initial output declines by no more than 30%: Product name: Rated average life (hours) [insert product name]: [insert rated average life] …
3b	The project lamps' batteries shall have a charging efficiency of at least 50% (certified by manufacturer);	The battery charging efficiency at the time of purchase is at least 50% as certified by manufacturer: Battery type: Charging efficiency [insert battery type]: [insert charging efficiency] …
3c	The project lamps shall have a minimum of one year warranty which will cover free	Project lamps that are distributed under the CPA have a minimum of one-year warranty:

#	Eligibility criteria	Justification
	replacement or repair of any failed lamps, batteries and where applicable solar panels.	<table><tr><td>Product name</td><td>Warranty</td></tr><tr><td>[insert product name]</td><td>[insert warranty period]</td></tr></table>
3d	The CPA shall comprises activities that replace portable fossil fuel based lamps with LED-based lighting systems in residential and non-residential applications	The CPA's distribution plan involves the replacement of portable fossil fuel based lamps with LED based lighting systems in residential and non-residential applications
4	The start date of the CPA shall not be prior to the commencement of the validation of the PoA.	The start date of the CPA will be on [insert start date]. This is after the start of validation of the Programme of Activities (07/09/2011)
5	The CPA meets all the applicability criteria of AMS III.AR (version 01)	Detailed assessment that the CPA meets the applicability criteria is given in the table in section B.3 below.
6	The CPA meets requirements pertaining to demonstration of additionality.	
6a	For microscale CPAs, the CPA requirements stipulated in the Guidelines for demonstrating additionality of microscale project activities (version 04, EB 68, Annex 26) are as given below: "Type III project activities that aim to achieve emissions reductions at a scale of no more than 20 ktCO2e per year, are additional if any one of the following conditions is satisfied: (a) The geographic location of the project activity is a LDC/SID or special underdeveloped zone (SUZ) of the host country. SUZ is a region in the host country (zone, municipality or any other designated official administrative unit) identified by the Government in official notifications for development assistance including for planning, management, and investment satisfying any one of the following conditions using most recent available data: • The proportion of population with income less than USD 2 per day (PPP) in the region is greater than 50%;	[If the CPA applies the *Guidelines for demonstrating additionality of microscale project activities* (version 04, EB 68, Annex 26), write the justification as below] The CPA will apply the *Guidelines for demonstrating additionality of microscale project activities* (version 04, EB 68, Annex 26). a) The CPA achieves emission reductions of [insert amount of emission reductions achieved] b) (i) The geographic location of the CPA is a [insert whether LDC/SID or a special underdeveloped zone (SUZ) of the host country . SUZ is a region in the host country (zone, municipality or any other designated official administrative unit) identified by the Government in official notifications for development assistance including for planning, management, and investment satisfying any one of the following conditions using most recent available data: • The proportion of population with income less than USD 2 per day (PPP)

#	Eligibility criteria	Justification
	• The GNI per capita in the country is less than USD 3000 and the population of the region is among the poorest 20% in the poverty ranking of the host country as per the applicable national policies and procedures ; (b) The project activity is an emission reduction activity with both conditions (i) and (ii) satisfied (see below); (i) Each of the independent subsystems/measures in the project activity achieves an estimated annual emission reduction equal to or less than 600 tCO2e per year; and (ii) End users of the subsystems or measures are households/communities/SMEs."	in the region is greater than 50%; • The GNI per capita in the country is less than USD 3000 and the population of the region is among the poorest 20% in the poverty ranking of the host country as per the applicable national policies and procedures] [Or] (ii) Estimated annual emission reductions of each independent subsystem is [insert amount of emission reductions]
6b	For CPAs that do not meet the requirements of the Guidelines for the demonstration of microscale projects, additionality of a typical CPA shall be demonstrated using the simplified procedures for small-scale project activities as given in *Guidelines on the demonstration of additionality of small-scale project activities* (version 09, EB 68, Annex 27). In line with the General guidelines for SSC CDM methodologies (version 17, EB 61, Annex 21), the project activity shall further use the Non-binding best practice examples to demonstrate additionality for SSC project activities (EB 35, Annex 34) and the Guidelines for objective demonstration and assessment of barriers (version 01, EB 50, Annex 13). More specifically, a typical CPA would not have occurred anyway due to the following barriers: The CPA is implemented in a country (or other geographical area) where fossil fuel	[If the CPA does not apply the *Guidelines for demonstrating additionality of microscale project activities* (version 04, EB 68, Annex 26), write the justification as below] The CPA meets additionality requirements for small-scale project activities under the PoA as given below: a) [Insert justification that the CPA is implemented in a country (or other geographical area) where fossil fuel usage for lighting purposes is prevailing practice] b) [Insert justification that the CPA is implemented in a country (or other geographical area) where a less technologically advanced alternative to the LED based lighting systems is available, which is based on fossil fuel. It will further be demonstrated that the less technologically advanced

#	Eligibility criteria	Justification
	usage for lighting purposes is prevailing practice. The CPA is implemented in a country (or other geographical area) where a less technologically advanced alternative to the LED based lighting systems is available, which is based on fossil fuel. It will further be demonstrated that the less technologically advanced alternative involves lower risks due to the performance uncertainty or low market share of the LED based lighting systems adopted. Finally, the CPA would not have occurred anyway due to one or more access-to-capital barriers. Existing barriers for access-to-capital can be demonstrated at various levels: It can be demonstrated that the implementation of the CPA is consequential to the removal of the access-to-capital at the level of Barefoot Power (i.e. the CPA would not have been implemented if Barefoot Power would not have been able to raise the necessary capital for the development of its next generation of high-quality solar-based LED systems). It can be demonstrated that CPA would not have been implemented due to lack of access to working capital at the distributor level. It can be demonstrated that the CPA would not have been implemented due to lack of finance at the end-user level.	alternative involves lower risks due to the performance uncertainty or low market share of the LED based lighting systems adopted]. c) The CPA will only distribute Barefoot Power products through [insert CPA implementing entity]. Therefore, the access-to-capital barrier will be demonstrated by showing that implementation of the CPA is consequential to the removal of the access-to-finance barrier at the Barefoot Power Pty Limited level. [Insert justification that the implementation of the CPA is consequential to the removal of the access-to-capital at the level of Barefoot Power (i.e. the CPA would not have been implemented if Barefoot Power would not have been able to raise the necessary capital for the development of its next generation of high-quality solar-based LED systems), that the CPA would not have been implemented due to lack of access to working capital at the distributor level and that the CPA would not have been implemented due to lack of finance at the end-user level].
7	The CPA shall conduct a local stakeholder consultation meeting and perform an environmental impact analysis.	The CPA conducted a local stakeholder consultation meeting as detailed in section D of this CPA DD and performed an environmental impact analysis in line with local environmental laws as detailed in section C of this CPA DD.
8	The CPA has not received funding from Annex I parties that results in a diversion of official development assistance	[The CPA entity has provided a confirmation letter that it has not received funding from Annex I parties] or [the CPA entity has provide

#	Eligibility criteria	Justification
		a confirmation letter from an Annex I party confirming that the funding to the CPA does not result in a diversion of official development assistance]
9	The CPA targets households and SMEs that use fossil fuel lamps for lighting purposes	In line with the CPA's business plan and distribution model, the CPA will be distributing solar LED products to households and SMEs in [insert country] and will target households and SMEs that use fossil fuel lamps for lighting purposes. [Insert further supporting information]
10	For CPAs with project lamps that will claim emission reductions for up to seven years, the project activity will carry out a survey in the third year of the CPA's crediting period to determine the percentage of project lamps distributed to end users that are operating and in service. The CPA entity has put in place a system to record data and information about the end users to allow for sampling in year three of the crediting period of the CPA. At a minimum the information should include: Contact details of end user Location of end user Serial number of the project lamp	The CPA has prepared a monitoring manual that includes the description of the sampling plan more specifically the sampling design, data to be collected and implementation plan in line with version 02.0 of the Standard for sampling and surveys for CDM project activities and programme of activities (EB 65, Annex 2). [For Project Lamps in the CPA that will claim emission reductions for up to seven years, a survey will be carried out in the third year of the crediting period to determine the percentage of project lamps distributed to end users that are operating and are in service with the sampling plan given in section B.6.1 of this CPA DD in line with version 02.0 of the Standard for sampling and surveys for CDM project activities and programme of activities (EB 65, Annex 2). The CPA entity has also put in place a system to record data and information about the end users to allow for sampling as given in section B.6.1 of this CPA DD.] Or [The project lamps in the CPA claim emission reductions for up to two years, therefore the project activity is not required to carry out a survey to determine the percentage of project lamps distributed to end users that are operating and in service.]

#	Eligibility criteria	Justification
11	The annual emission reductions achieved by the CPA will not exceed 60 ktCO2e	Annual emission reductions do not exceed 60 ktCO2e.
12	The CPA is not a debundled component of a large-scale project activity in accordance with the latest approved version of the Guidelines on assessment of debundling for SSC project activities.	Debundling check is carried out in line with the latest approved version of the Guidelines on assessment of debundling for SSC project activities. The debundling check can be found in section 4.6 of the CPA-DD.
13	The LED based lighting systems distributed by the CPA will be charged solely by a renewable energy system.	BFP verifies that the LED based lighting systems distributed by the CPA will be charged by solar photovoltaic systems. Solar photovoltaic systems are renewable energy systems.
14	The CPA entity has signed contractual agreements with the CME to participate in the PoA. Those agreements will include all rights and responsibilities of both parties, e.g. approval procedures by the CME, monitoring requirements, emission reduction transfer and benefit sharing. At a minimum the agreement shall ensure that the coordinating/managing entity will have control of all records and information related to the implementation of individual CPAs and will be in a position to ensure each CPA is being operated in accordance with the specific requirements of the programme.	[Insert name of CPA entity] has signed an agreement with the CME to participate in the PoA.

Table 1: Assessment that the CPA meets the applicability criteria of AMS III.AR (version 01)

#	Applicability criteria	Justification
1.	This category comprises activities that replace portable fossil fuel based lamps with LED-based lighting systems in residential and non-residential applications	The CPA involves the replacement of portable fossil fuel based lamps with LED based lighting systems in residential and non-residential applications.
2.	This methodology is applicable only to project lamps whose batteries are charged using one of the following options: (a) Charged by renewable energy system (e.g. photovoltaic systems or mechanical systems such as wind battery chargers);	The LED based lighting systems distributed by the CPA will be charged by solar photovoltaic systems. Solar photovoltaic systems are renewable energy systems.

<table>
<tr><th>#</th><th>Applicability criteria</th><th>Justification</th></tr>
<tr><td></td><td>(b) Charged by a standalone distributed generation system (e.g. a diesel generator set) or a mini-grid;
(c) Charged by a grid that is connected to regional/national grid.</td><td></td></tr>
<tr><td>3</td><td>At a minimum project lamps shall be certified by their manufacturer to have a rated average life of at least 5,000 hours. Rated average life is the life certified by the manufacturer or responsible vendor as being the time at which the lampís initial light output will decline by no more than 30%. In addition, the manufacturer shall certify that the project lamps battery charging efficiency, at the time of purchase, is at least 50%.</td><td>Project lamps that will be distributed under the CPA have a rated average life of at least 5,000 hours as certified by manufacturer:
<table><tr><th>Product name</th><th>Rated average life (hours)</th></tr><tr><td>[insert product name]</td><td>[insert rated average life]</td></tr><tr><td>…</td><td></td></tr></table>
The battery charging efficiency at the time of purchase is at least 50% as certified by manufacturer:
<table><tr><th>Battery type</th><th>Charging efficiency</th></tr><tr><td>[insert battery type]</td><td>[insert charging efficiency]</td></tr><tr><td>…</td><td></td></tr></table></td></tr>
<tr><td>4.</td><td>Project Lamps shall have a minimum of one year warranty which covers free replacement or repair of failed lamps, batteries and where applicable solar panels</td><td>Project lamps that are distributed under the CPA have a minimum of one-year warranty:
<table><tr><th>Product name</th><th>Warranty</th></tr><tr><td>[insert product name]</td><td>[insert warranty period]</td></tr></table></td></tr>
</table>

#	Applicability criteria	Justification
5	The project design document shall explain the proposed method of distribution of project lamps. It shall also explain how the proposed project activity will: a) Ensure that the replaced baseline lamps are only those directly consuming fossil fuel. This can be done through documentation of the common practice of fuel. b) Eliminate double counting of Emission Reductions, for example due to LED manufacturers, suppliers of solar and/or battery equipment, or others claiming credit for Emission Reductions for the project lamps. At a minimum project lamps shall be marked as CDM project lamps; c) Ensure compliance with prevailing regulations pertaining to use and disposal of batteries.	The method of distribution of project lamps is explained in section A.2 of this CPA DD. a) The replaced baseline lamps are only those directly consuming fossil fuel. Further baseline information is given in annex 3 of this CPA DD. b) To eliminate double counting, all Project Lamps distributed by the CPA have a serial number and CPA code marked on their casing. Additionally, the CPA implementing entity has signed an agreement with the CME confirming that the CPA has not yet been included in another Programme of Activities or has not yet been registered as a single CDM project activity. c) With regard to the use and disposal of batteries the project activity complies with [insert the name of local law]. Further details are given in section C of this CPA DD.
6.	The project design document shall include design specification of project lamps such as: (a) Lamp wattage (in Watts) and illuminance (in lux); (b) Lamp rated lifetime (in hours); (c) Where applicable type and the rated capacity of renewable energy equipment for charging the battery (in Watts); (d) Type (e.g. NiMH, Lead-Acid, Li-ion), and rated capacity of the battery (in Ampere Hours); (e) Type of charge controller (e.g. active or passive);	The following design specifications of the project lamps under the CPA have been described in the section A.2. of this CPA- DD. a) Lamp wattage (in Watts) and illuminance (in lux); (b) Lamp rated lifetime (in hours); (c) Type and the rated capacity of renewable energy equipment for charging the battery (in Watts); (d) Type and rated capacity of the battery (in Ampere Hours); (e) Type of charge controller (e.g.

#	Applicability criteria	Justification
	(f) Autonomous Time and Daily Burn Time; (g) Where applicable (with solar energy charging systems) maximum, minimum and average monthly Solar Fraction values during the year; (h) Where applicable grid charging time; (i) Physical protection against weather impacts (e.g. rain, heat, insect ingress).	active or passive); (f) Autonomous Time and Daily Burn Time; (g) Maximum, minimum and average monthly Solar Fraction values during the year; (h) Physical protection against weather impacts (e.g. rain, heat, and insect ingress).
7.	The project activity shall restrict the number of project lamps distributed through the project activity to no more than five per household (for residential applications) or per business location (e.g. for commercial applications such as shops)	In order to restrict the number of project lamps distributed through the project activity to no more than five per household (for residential applications) or per business location (e.g. for commercial applications such as shops), a check box replying to whether the 'Number of Project Lamps in use in end-user's household is more than 5' will be on the warranty card. If the end-user is utilising 5 or more project lamps, the box must be checked, and emission reductions would not be claimed for these lamps.
8.	Measures are limited to those that result in emissions reductions of less than or equal to 60 k ton CO2 equivalent annually.	The average annual emissions reductions for the CPA are estimated to be [insert the estimated emission reductions] which result in less than 60 kt CO2 equivalent annually.
9	LED Lamp Effective Useful Life i) Option 1: Project Lamps are assumed to operate for two years after project lamp distribution to end-users. Therefore, emission reductions can only be claimed for two years; ii) Option 2: Project Lamps are assumed to operate for seven years after project lamp distribution to end-users, and thus emission reductions can be claimed for	[Insert the option that the Project Lamps distributed by the CPA will use and justification]

#	Applicability criteria	Justification
	up to seven years per project lamp, if and if all the following conditions for the project lamps are met: (a) At a minimum, LED lamps must be certified by their manufacturer to have a useful life of 10,000 hours. Within this time span, the relative luminous flux shall not reduce by more than 30% as per equation 1. Such claims shall be confirmed by a third-party testing organization using an applicable standard and testing protocol. As an alternative to long-term measurement of light output over the full lifetime of the lamp, a shortened measurement period of 2,000 hours may be chosen. If a 2,000-hour test period is used, the relative luminous flux shall not decrease by more than 10% during the 2,000 hours of continuous operation. As per the principles indicated in paragraph 4 of AMS-II.J Demand-side activities for efficient lighting technologies, if the average life value is not available ex ante, it shall be made available for verification; b) The project lamps use a replaceable, chargeable battery. In addition, there must be documented measures in place to ensure that lamp owners have access to replacement batteries of comparable quality; c) Following criteria are satisfied with regard to the design specifications of the project lamps: (i) An illumination level of 20 lx for task and portable lights and 4 lx@1m for ambient lights; (ii) For charging option per 2 (b) or 2 (c), the Daily Burn Time (DBT) shall be equal to autonomous time after eight hours of charging; (iii) For charging option 2 (a) with solar	

#	Applicability criteria	Justification
	PV panel as the charging source, the minimum Solar Fraction achieved on a monthly basis during the year shall be 100%; (iv) The battery capacity will be such that Autonomous Time of the Project Lamps shall be a minimum of 150% of DBT; (v) With regard to dust and water tightness a minimum protection of IP41 is achieved in accordance to IEC 60529 or an equivalent national standard. (d) Conditions 11 (a), 11 c (i) to 11 c(v) are confirmed by a third-party testing organization based on sample test of project lamps using applicable national standards where such are available or alternatively the standards or test protocols indicated in annex 1 of version 01 the methodology AMS III AR. The laboratory conducting and certifying the tests shall comply with the requirements of a relevant national or international standard, e.g. ISO/IEC 17025. If the testing results are not available ex ante, they shall be made available for verification; (e) Project lamps shall be, in addition to the standard lamp specifications, be marked for clear, unique identification with the project activity.	

B.3. Assessment and demonstration of additionality of the small-scale CPA , as per eligibility criteria listed in the Registered PoA:

>>

In order to assess and demonstrate the additionality of the small-scale CPA, the project proponent has used the simplified procedures for small-scale project activities as given in *Guidelines on the demonstration of additionality of small-scale project activities* (version 09, EB 68, Annex 27). If the CPA

applies the *Guidelines for demonstrating additionality of microscale project activities* (version 04, EB 68, Annex 26), the following key criteria for assessing additionality will be used:

No	Criteria	Assessment
1.	CPA will achieve emission reductions at a scale of no more than 20ktCO2e per year	**Year** / **Emission Reductions** [insert year] / [insert emission reductions] [insert year] / [insert emission reductions] [insert year] / [insert emission reductions] [insert year] / [insert emission reductions] [insert year] / [insert emission reductions] [insert year] / [insert emission reductions] [insert year] / [insert emission reductions] [insert year] / [insert emission reductions] [insert year] / [insert emission reductions] [insert year] / [insert emission reductions]
2.	One of the following conditions is satisfied: • The geographic location of the project activity is a LDC/SID or special underdeveloped zone of the host country. SUZ is a region in the host country (zone, municipality or any other designated official administrative unit) identified by the Government in official notifications for development assistance including for planning, management, and investment satisfying any one of the following conditions using most recent available data: o The proportion of population with income less than USD 2 per day (PPP) in the region is greater than 50%; o The GNI per capita in the country is less than USD 3000 and the population of the region is among the poorest 20% in the poverty ranking of the host country as per the applicable national policies and procedures • The project activity is an emission reduction activity with both conditions (i) and (ii) satisfied (see below); i. Each of the independent	[insert assessment]

	subsystems/measures in the project activity achieves an estimated annual emission reduction equal to or less than 600 tCO2e per year; and ii. End users of the subsystems or measures are households/communities/SMEs.	

If the CPA does not apply the *Guidelines for demonstrating additionality of microscale project activities* (version 04, EB 68, Annex 26), the project proponent will use the simplified procedures for small-scale project activities as given in *Guidelines on the demonstration of additionality of small-scale project activities* (version 09, EB 68, Annex 27). In line with the *General guidelines for SSC CDM methodologies* (version 17, EB 61, Annex 21), the project activity will further use the *Non-binding best practice examples to demonstrate additionality for SSC project activities* (EB 35, Annex 34) and the *Guidelines for objective demonstration and assessment of barriers* (EB 50, Annex 13). The following key criteria will be used for demonstrating additionality:

No	Criteria	Assessment
1.	The CPA is implemented in a country where fossil fuel usage for lighting is *common practice*. This will be demonstrated based on representative sample surveys, official data or peer reviewed literature.	[insert assessment]
2.	The CPA is implemented in a country where a less technologically advanced alternative is available, which results in higher emissions. This will be demonstrated based on representative sample surveys, official data or peer reviewed literature.	[insert assessment]
3.	The CPA would not have been implemented anyway due to barriers related to access to capital. Demonstration of the lack-of-access barrier shall be based on the Guidelines for objective demonstration of barriers (version 01, EB 50, Annex 13) and shall include information on the nature of the companies and entities involved in the financing and implementation of the CPA. If the CPA only distributes Barefoot Power products, it shall be proven that the implementation of the CPA is consequential to the removal of the	[insert assessment]

	access-to-finance barrier at the Barefoot Power level.	

B.4. Description of the sources and gases included in the project boundary and proof that the small-scale CPA is located within the geographical boundary of the registered PoA.

>>

The project boundary is the physical, geographical site where each project lamp is utilized and includes the physical, geographical site of the [insert type of renewable energy system].

The source and gas included in the SSC-CPA boundary is carbon dioxide from fossil-fuel based lamps.

The project lamps are distributed in [insert Host Country]. Therefore, the small-scale CPA is located within the geographical boundary of the registered PoA.

B.5. Emission reductions:

B.5.1. Data and parameters that are available at validation:

>>

Data / Parameter:	**Fuel use rate**
Data unit:	Litres/hour
Description:	Amount of fuel used per hour by fossil fuel based lamps
Source of data used:	Default value from approved baseline and monitoring methodology AMS III.AR or alternative value if adequate data and information is available.
Value applied:	[insert value]
Justification of the choice of data or description of measurement methods and procedures actually applied :	[As per the stipulations of the approved baseline and monitoring methodology AMS III.AR.] *Or* [In cases where adequate research and documentation is available (e.g. strategic surveys and research conducted by national or local organizations, initiatives by international organizations or non governmental organizations or reliable and comprehensive data collected by the Barefoot Power or a CPA entitiy), alternative parametric values could be used.]
Any comment:	N/A

Data / Parameter:	**Utilization rate**
Data unit:	hours/day
Description:	Average number of hours per day households use fossil fuel based lamps in the baseline
Source of data used:	Default value from approved baseline and monitoring methodology AMS III.AR or alternative value if adequate data and information is available.
Value applied:	[insert value]
Justification of the	[As per the stipulations of the approved baseline and monitoring methodology

choice of data or description of measurement methods and procedures actually applied :	AMS III.AR.] *Or* [In cases where adequate research and documentation is available (e.g. strategic surveys and research conducted by national or local organizations, initiatives by international organizations or non governmental organizations or reliable and comprehensive data collected by the Barefoot Power or a CPA entitiy), alternative parametric values could be used.]
Any comment:	

Data / Parameter:	**Utilization**
Data unit:	days/year
Description:	Number of days per year households use fossil fuel based lamps in the baseline.
Source of data used:	Default value from approved baseline and monitoring methodology AMS III.AR.
Value applied:	365
Justification of the choice of data or description of measurement methods and procedures actually applied :	As per the stipulations of the approved baseline and monitoring methodology AMS III.AR
Any comment:	N/A

Data / Parameter:	**Fuel Emission Factor**
Data unit:	kgCO2/liter
Description:	Amount of carbon dioxide emissions resulting from the combustion of fossil fuel used for lighting purposes in the baseline
Source of data used:	Default value from approved baseline and monitoring methodology AMS III.AR.
Value applied:	[insert value]
Justification of the choice of data or description of measurement methods and procedures actually applied :	[As per the stipulations of the approved baseline and monitoring methodology AMS III.AR] *Or* [In cases where adequate research and documentation is available (e.g. strategic surveys and research conducted by national or local organizations, initiatives by international organizations or non governmental organizations or reliable and comprehensive data collected by the Barefoot Power or a CPA entitiy), alternative parametric values could be used.]
Any comment:	N/A

Data / Parameter:	**Leakage factor**
Data unit:	-

Description:	-
Source of data used:	Default value from approved baseline and monitoring methodology AMS III.AR.
Value applied:	1.0
Justification of the choice of data or description of measurement methods and procedures actually applied :	As per the stipulations of the approved baseline and monitoring methodology AMS III.AR
Any comment:	N/A

Data / Parameter:	**Number of fuel-based lamps replaced per project lamp**
Data unit:	-
Description:	-
Source of data used:	Default value from approved baseline and monitoring methodology AMS III.AR or alternative value if adequate data and information is available.
Value applied:	[insert value]
Justification of the choice of data or description of measurement methods and procedures actually applied :	[As per the stipulations of the approved baseline and monitoring methodology AMS III.AR] *Or* [In cases where adequate research and documentation is available (e.g. strategic surveys and research conducted by national or local organizations, initiatives by international organizations or non governmental organizations or reliable and comprehensive data collected by the Barefoot Power or a CPA entity), alternative parametric values could be used.]
Any comment:	N/A

Data / Parameter:	**Net-to-Gross factor**
Data unit:	-
Description:	-
Source of data used:	Default value from approved baseline and monitoring methodology AMS III.AR.
Value applied:	[insert value]
Justification of the choice of data or description of measurement methods and procedures actually applied :	As per the stipulations of the approved baseline and monitoring methodology AMS III.AR *Or* [In cases where adequate research and documentation is available (e.g. strategic surveys and research conducted by national or local organizations, initiatives by international organizations or non governmental organizations or reliable and comprehensive data collected by the Barefoot Power or a CPA entitiy), alternative parametric values could be used.]
Any comment:	N/A

Data / Parameter:	**DV**
Data unit:	tCO2e
Description:	Default Emission Factor
Source of data used:	Default value from approved baseline and monitoring methodology AMS III.AR or alternative value if adequate data and information is available.
Value applied:	[insert value]
Justification of the choice of data or description of measurement methods and procedures actually applied :	As per the stipulations of the approved baseline and monitoring methodology AMS III.AR
Any comment:	N/A

Data / Parameter:	**GFy**
Data unit:	-
Description:	Grid Factor
Source of data used:	Default value from approved baseline and monitoring methodology AMS III.AR
Value applied:	1.0
Justification of the choice of data or description of measurement methods and procedures actually applied :	As per the stipulations of the approved baseline and monitoring methodology (AMS III.AR), the Grid Factor equals 1.0 when the project lamps are charged by renewable energy systems (e.g. photovoltaic systems).
Any comment:	N/A

Data / Parameter:	**DB_y**
Data unit:	-
Description:	Dynamic Baseline Factor (change in baseline fuel, fuel use rate, and/or utilization during crediting period) in year y.
Source of data used:	Default value from approved baseline and monitoring methodology AMS III.AR or alternative value if relevant information is available.
Value applied:	[insert value]
Justification of the choice of data or description of measurement methods and procedures actually applied :	[As per the stipulations of the approved baseline and monitoring methodology AMS III.AR] *Or* [In cases where adequate research and documentation is available (e.g. strategic surveys and research conducted by national or local organizations, initiatives by international organizations or non governmental organizations or reliable and comprehensive data collected by the Barefoot Power or a CPA entitiy), alternative parametric values could be used.]

Any comment:	N/A

Data / Parameter:	**z**
Data unit:	n/a
Description:	Standard normal for a confidence level of 90%
Source of data used:	H. Russell Bernard (1995) *Research Methods in Anthropology. Qualitative and Quantitative Approaches.* Altamira Press, London.
Value applied:	1.645
Justification of the choice of data or description of measurement methods and procedures actually applied :	This is the standard value for standard normal for a confidence level of 90% for a two-tailed test
Any comment:	N/A

B.5.2. Ex-ante calculation of emission reductions:

>>

Emission reductions are calculated using equation (4):

$$ER_y = \sum_{i,j} N_{i,j} \times \left(BE_{y,i} - PE_{y,i,j}\right) \times \left(OF_{y,i,j}\right)$$

ER_y	Emission reductions in year *y* (tCO_2e)
$N_{i,j}$	Number of project lamps distributed to end users of type *i* with charging method *j*
$OF_{y,i,j}$	Percentage of project lamps distributed to end users that are operating and in service in year *y*, for each lamp type *i* and charging method *j*. Assumed to equal to 100% for years 1, 2 and 3. Equal to value determined per paragraph 21, for years 4, 5, 6 and 7

Project emissions ($PE_{y,i,j}$)

Project emissions are zero because the project activity uses renewable energy systems to charge the project lamps.

Baseline emissions (BE_y) are calculated using equation (2)

$BE_y = DV * GF_y * DB_y$

BE_y	Baseline Emissions per project lamp in year *y* (tCO2e)
DV	Default Emissions Factor
GF_y	Grid Factor in year *y*
DB_y	Dynamic Baseline Factor (change in baseline fuel, fuel use rate, and/or utilization during crediting period) in year y

DV is calculated using the following parametric values:

Parameter	Value	Unit
Fuel use rate	[insert value]	liters/hour
Utilization rate	[insert value]	hours per day
Utilization	365	days per year
Fuel emission factor	[insert value]	kgCO2/liter
Leakage factor	1.0	-
Number of fuel-based lamps replaced by the project lamp	[insert value]	-
Net-to-Gross factor	[insert value]	-

Grid Factor (GF_y) in year y will be equal to 1.0 because the project activity uses renewable energy systems to charge the project lamps.

The Dynamic Baseline Factor (DB_y) in year y will be [insert value].

Therefore, Baseline Emission per project lamp in year y equal [insert value] tCO2.

$OF_{y,i,j}$ is estimated statistically during the third year of the crediting period of the CPA
Number of project lamps ($N_{i,j}$) distributed to end users will be conservatively estimated based on the sales records of [insert name of CPA entity]. Using existing sales forecasts, the number of project lamps distributed to end-users is conservatively estimated at:

Year	**Number of project lamps distributed to end users ($N_{i,j}$)**
[insert year]	[insert value]
[insert year]	[insert value]
[insert year]	[insert value]
[insert year]	[insert value]
[insert year]	[insert value]
[insert year]	[insert value]
[insert year]	[insert value]
[insert year]	[insert value]
[insert year]	[insert value]
[insert year]	[insert value]

Approved baseline and monitoring methodology AMS III.AR requires emission reductions to be considered from the date of completion of distribution of the project lamps to end-users. For those cases where project lamps are distributed during multiple years, the methodology further requires that "the elapsed lifetime of lamps can be unambiguously tracked to ensure that emission reductions are not credited beyond two years (for Option 1) or seven years (for Option 2) for any given project lamp". Therefore, an adjustment has to be made for the Utilization (days/year) of project lamps for the year (or verification period) in which they are distributed and the year (or verification period) in which the lifetime of the project lamp ends. The adjustment is made by introducing a correction factor for effective operational days in year (or verification period) y ($CF_{OD,n,y}$) where $CF_{OD,n,y}$ is calculated using the following equation:

$CF_{OD,n,y} = OD_{n,y} / k$

Where:

$CF_{OD,n,y}$	Correction factor to adjust for the number of days project lamp *n* is operational in year (or verification period) *y*
$OD_{n,y}$	Number of days project lamp *n* is operational in year or verification period *y*
k	Number of days in year or verification period *y*
y	Year or verification period

Based on the above values and assumptions, the *ex ante* emission reductions for the first year of the crediting period can be calculated as follows:

$ER_y = \sum N_{i,j} * (BE_y - PE_{y,i,j}) * OF_{y,i,j}$

= [insert value] * ([insert value] – 0) * [insert value]
= [insert value] tCO2

Considering the Correction Factor to adjust for the number days project lamps are actually operational in year *y*, total emission reductions amount to [insert value] tCO2 for the first year of the verification period.

B.5.3. Summary of the ex-ante estimation of emission reductions:

>>

Year	Estimation of project activity emissions (tonnes of CO_2 e)	Estimation of baseline emissions (tonnes of CO_2 e)	Estimation of leakage (tonnes of CO_2 e)	Estimation of overall emission reductions (tonnes of CO_2 e)
Year A	0	[insert value]	0	[insert value]
Year B	0	[insert value]	0	[insert value]
Year C	0	[insert value]	0	[insert value]
Year …	0	[insert value]	0	[insert value]
Total (tonnes of CO_2 e)	0	[insert value]	0	[insert value]

B.6. Application of the monitoring methodology and description of the monitoring plan:

B.6.1. Description of the monitoring plan:

>>

Data to be monitored

The following data will be monitored during the implementation of the project activity:

- Number of project lamps distributed to end users of type i with charging method *j* ($N_{i,j}$)

- Date on which project lamps are manufactured ($DATE_{man,m}$ $DATE_{man,j}$)
- Date on which project lamps are distributed to the end user ($DATE_{m,start}$)

[In addition, the project will carry out a survey in the third year of the crediting period to determine the percentage (p_{usgage}) of project lamps distributed to end users that are operating and in service.]

Monitoring procedures

Parameter: Number of project lamps distributed to end users of type i with charging method *j* ($N_{i,j}$)		
Task/Responsibility	*CPA Role (yes/no)*	*Specification*
Data collection	[yes/no]	[insert role and responsibility of CPA]
Data processing	[yes/no]	[insert role and responsibility of CPA]
Data archiving	[yes/no]	[insert role and responsibility of CPA]

Parameter: Date on which project lamps are manufactured ($DATE_{man,m}$, $DATE_{man,j}$)		
Task/Responsibility	*CPA Role (yes/no)*	*Specification*
Data collection	[yes/no]	[insert role and responsibility of CPA]
Data processing	[yes/no]	[insert role and responsibility of CPA]
Data archiving	[yes/no]	[insert role and responsibility of CPA]

Parameter: Date on which project lamps are distributed to the end user ($DATE_{m,start}$)		
Task/Responsibility	*CPA Role (yes/no)*	*Specification*
Data collection	[yes/no]	[insert role and responsibility of CPA]
Data processing	[yes/no]	[insert role and responsibility of CPA]
Data archiving	[yes/no]	[insert role and responsibility of CPA]

[Monitoring surveys

For project lamps that will claim emission reductions for up to seven years, the project activity will carry out a survey in the third year of the CPA to determine the percentage of project lamps distributed to end users that are operating and in service. The sampling plan for carrying out the survey has been designed in line with version 02.0 of the *Standard for sampling and surveys for CDM project activities and programme of activities* (EB 65, Annex 2).

A. Sampling Design

Objectives and reliability requirements: The objective of the sampling is to determine the percentage of project lamps that are operational during the third year of the crediting period with a 90/10 confidence/precision.

Target Population: The Target Population are recipients of project lamps.

Sample Method: A sample will be drawn using multistage sampling. The project activity will first draw a sample of [insert geographical unit] and then take a random sample from the recipients within that [insert geographical unit]. Each [insert geographical unit] and recipient will have a unique number. Random samples will be drawn using a random number table or random number generator.

Sample Size

The sample size is determined based on the following formula:

$$c \geq \frac{\frac{SD_B^2}{\overline{p}^2} \times \frac{M}{M-1} + \frac{1}{\overline{u}} \times \frac{SD_w^2}{\overline{p}^2} \times \frac{(\overline{N}-\overline{u})}{(\overline{N}-1)}}{\frac{0.1^2}{1.645^2} + \frac{1}{M-1}\frac{SD_B^2}{\overline{p}^2}}$$

Where:

c	Number of districts that should be sampled		
M	Total number of districts in the population	[Insert value]	[Insert justification]
ū	Number of households to be sampled within each district	[Insert value]	[Insert justification]
Ń	Average households per district	[Insert value]	[Insert justification]
SD_w^2	District variance	[Insert value]	This is the average of values for variance of proportion of project lamps in operation for 10 [insert geographical unit]. The values for the proportion of project lamps in operation for each [insert geographical unit] is based on expert knowledge.
SD_B^2	Average of the [insert geographical unit] variances (average within [insert geographical unit] variation)	[Insert value]	This is the variance of the proportion of project lamps in operation for 10 [insert geographical unit].
p	Overall proportion	[Insert value]	This is the average proportion of project lamps

		in operation for 10 [insert geographical unit].
90% confidence level	1.645	This is the standard normal for 90% confidence interval for two-tailed test (as per provisions in para 22 of AMS.III.AR, version 01)
Level of precision	0.1	As per provisions in para 22 of AMS.III.AR, version 01

Substituting the values into the equation gives [insert value] [insert geographical unit] that should be sampled. A total sample size of [insert value] households is obtained from the [insert value] households/recipients to be selected within each sample [insert geographical unit].

The sample will be drawn by first randomly selecting [insert value] [insert geographical unit]. Next, a random sample of [insert value] households/recipients will be taken from each [insert geographical unit].

Sampling Frame

The sampling frame for the [insert geographical unit] will consist of an official list of [insert geographical unit].

The sampling frame for the recipients of project lamps will consist of the records of recipients in the project database in the relevant [insert geographical unit]. If there are no (or insufficient) recipients for a certain [insert geographical unit], the project will randomly select additional [insert geographical unit].

B. Data

Field Measurement Objectives and Data to be collected: A survey will be carried out in year three of each CPA using a closed questionnaire (see Annex 4 for a sample questionnaire). In addition to the questionnaire, the surveyors will also physically check whether the end user is in possession of the project lamp, whether the project lamp is operational and whether the project lamp carries a marker for clear, unique identification with the project activity.

Quality assurance and quality control:

Samples will be drawn by an independent entity.

Surveys will be carried out by independent persons that are not employed by the coordinating/managing entity or CPA entity and do not have a direct stake in the Programme of Activity.

One lead surveyor will review each questionnaire and the answers therein for quality control/translation accuracy.

Procedures for Administering Data Collection and Minimizing Non-Sampling Errors

[insert number] independent surveyors will be trained, one for each [insert geographical unit]. The training will cover the following topics:

1. Explanation on the purpose of the questionnaire
2. Discussion of the questionnaire
3. Contacting households
4. Procedures in case of non-response
5. Timeframe

Procedures to administer data collections:

1. Each trained surveyor will receive enough questionnaires (including extras) for [insert number] (or more) interviews and a list of recipients to be interviewed (including contact details)
2. Surveys will be carried out face-to-face in the national or local language, as appropriate
3. The surveyor will first check whether the recipient is in possession of a project lamp and whether it is operational. The surveyor will also check the mark on the project lamp.
4. Next the surveyor will carry out the short questionnaire as prepared by the coordinating/managing entity.
5. If applicable, the surveyor translates the questionnaire and returns it to the CPA entity or directly to the coordinating/managing entity.

Procedures for non-response:

1. If a recipient cannot be found according to the contact data from the sample list or if it is found that the data was erroneous, the recipient is deleted from the sample list.
2. If a recipient cannot be contacted due to temporary absence of the recipient or a relative of the recipient over age 12, the recipient will be visited a second time. If the recipient is also absent during the second visit, the recipient will be deleted from the sample list.
3. In case less than 100 responses are achieved (i.e. less than the minimum required sample size), the project will draw a new sample and survey additional recipients until the minimum of 100 recipients is reached.

Data analysis

1. Data analysis will be carried out by the coordinating/managing entity
2. All underlying data (questionnaires) will be kept both in hardcopy and electronically by the coordinating/managing entity.

Implementation

[insert name of CPA entity] will have the following roles and responsibilities in administering the survey:

Task	*CPA Role (yes/no)*	*Specficiation*
1. Contracting of surveyors	[insert yes/no]	[insert role and responsibility of CPA]
2. Training	[insert yes/no]	
3. Oversight and coordination	[insert yes/no]	[insert role and responsibility of CPA]
4. Data analysis	[insert yes/no]	[insert role and responsibility of CPA]
5. Data archiving	[insert yes/no]	[insert role and responsibility of CPA]
6. QA/QC	[insert yes/no]	[insert role and responsibility of CPA]

SECTION C. Environmental Analysis

C.1. Please indicate the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken. Justify the choice of level at which the environmental analysis is undertaken:

☐ Please tick if this information is provided at the PoA level. In this case sections C.2. and C.3. need not be completed in this form.

C.2. Documentation on the analysis of the environmental impacts, including transboundary impacts:

>>

[insert documentation on the analysis of the environmental impacts, including transboundary impacts]

C.3. Please state whether an environmental impact assessment is required for a typical CPA, included in the programme of activities (PoA), in accordance with the host Party laws/regulations:

>>

[insert statement about whether an environmental impact assessment is required in accordance with host Party laws/regulations. If an environmental impact assessment is required, provide a short summary.]

SECTION D. Stakeholders' comments

>>

D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice:

☐ Please tick if this information is provided at the PoA level. In this case sections D.2. to D.4. need not be completed in this form.

D.2. Brief description how comments by local stakeholders have been invited and compiled:

>>

Identification of stakeholders:

Based on the definition of Stakeholders as given in the latest version of the Glossary of CDM Terms, the project identified the following stakeholders:

[insert and describe categories of stakeholders (e.g. General public, government representatives, NGOs, international organizations, community representatives, etc.)]

How comments were invited

[insert ways in which comments were invited]

Proceedings of Stakeholder Consultation Meeting

[insert proceeding of stakeholder consultation meeting]

D.3. Summary of the comments received:

>>

[insert summary of comments received]

D.4. Report on how due account was taken of any comments received:

>>

[explain how due account was taken any comments received]

Annex 1

CONTACT INFORMATION ON ENTITY/INDIVIDUAL RESPONSIBLE FOR THE SMALL-SCALE CPA

Organization:	
Street/P.O.Box:	
Building:	
City:	
State/Region:	
Postfix/ZIP:	
Country:	
Telephone:	
FAX:	
E-Mail:	
URL:	
Represented by:	
Title:	
Salutation:	
Last Name:	
Middle Name:	
First Name:	
Department:	
Mobile:	
Direct FAX:	
Direct tel:	
Personal E-Mail:	

Annex 2

INFORMATION REGARDING PUBLIC FUNDING

Name of entity providing public funding	Party
[insert name]	[insert Party]

Annex 3

BASELINE INFORMATION

Annex 4

MONITORING INFORMATION

Sample List Template

Sample No.	Recipient ID	Name	Location	Contact	Serial number of project lamp
1					
2					
…					
125					

Questionnaire Template

Recipient information	• Name • Mobile phone (update)
Information on project lamp	• Serial Number • (approximate) date of purchase
Physical check of project lamp	• Is the household in possession of a project lamp? (Y/N) • Does the project lamp have a unique marking • Does the project lamp work? (Y/N)
Operational check of project lamp	• Does the recipient use the project lamp? (Y/N)
Max. 5 project lamps per recipient (i.e. per household or per business location)	• How many project lamps does the recipient have?
Signature of interviewee	•
Signature of surveyor	•

- - - - -