

**SMALL-SCALE CDM PROGRAMME ACTIVITY DESIGN DOCUMENT FORM  
(CDM-SSC-CPA-DD) - Version 01**



**NAME /TITLE OF THE PoA:** Energy Efficiency of Nigeria's Residential Lighting Stock by Distributing up to 40 Million Compact Fluorescent Lamps (CFLs) to Residential Households Connected to the National Grid.



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

**CONTENTS**

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- B. Eligibility of CPA and Estimation of Emission Reductions
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**Annexes**

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Annex 2: Information regarding public funding

Annex 3: Baseline information

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**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)<sup>1,2</sup> 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.

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

<sup>2</sup> 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).

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

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

Energy Efficiency of Nigeria’s Residential Lighting Stock by Distributing up to 40 Million Compact Fluorescent Lamps (CFLs) to Residential Households Connected to the National Grid – [insert location of SSC-CPA] – CPA [insert SSC-CPA number]

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

The SSC-CPA subscribes to the formalities described in SSC-PoA titled: Energy Efficiency of Nigeria’s Residential Lighting Stock by Distributing up to 40 Million Compact Fluorescent Lamps to Residential Households Connected to the National Grid.

**Goal of the SSC-CPA**

The goal of the SSC-CPA is to replace incandescent light bulbs (ICLs) with quality long life compact fluorescent lamps, henceforth referred to as CFLs, by distributing/installing approximately [insert the number of CFLs to be distributed/installed] CFLs to grid connected residential households in [insert location of SSC-CPA], [insert Province/State where SSC-CPA is located], Nigeria.

**Methodologies for the SSC-CPA**

- The project uses approved small-scale baseline and monitoring methodology: AMS-II.J, Demand-side activities for efficient lighting technologies, version 4
- Emission factor is calculated in accordance with the provisions in AMS-I.D Version 17
- “Tool to calculate the emission factor for an electricity system” version 2.2 is used to calculate Emission Factor.

**Technology to be employed**

- The SSC-CPA will employ self-ballasted (integrated) compact fluorescent lamps (CFLs) as replacement for incandescent light bulbs in residential households;
- Each CFL will be a new equipment and will not be transferred from another activity;
- Each CFL will meet light output requirements in accordance with the relevant national or international standards/values as detailed in Table 1, AMS II.J, Version 4;
- The SSC-CPA will utilize [insert wattage of CFL to be distributed/installed] power output with an average rated life of [insert average rated life of CFL to be distributed/installed];
- The total lumen output of the CFL will be equal to or more than that of the incandescent light bulbs being replaced;
- CFLs average rated life shall be known ex ante and shall meet the requirements of [insert international standard or an equivalent national standard]. DOE will confirm compliance with the requirements of applicable standard at the first verification;
- In addition to the standard manufacturer’s lamp specifications, CFLs used in the SSC-CPA will be legibly and permanently marked with the following information:
  - Manufacturer’s name or Logo
  - Unique serial number pertaining to the particular SSC-CPA

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- Icimi Ltd name or logo and 'Not For Sale or Resale' sign.
- The applicable Standard.
- Each CFL pack will include informative and instructive leaflet;
- SSC-CPA will carry out an education campaign through one or more mediums in order to educate households and communities on the project activities.

**CFL Distribution Methodology**

CFLs will be distributed by the method(s) described below: [select CFL distribution method(s) for the SSC-CPA from the options below, briefly describe option(s) selected where applicable]

- [Directly installing the CFLs]
- [Charging at least a minimal price for efficient lighting equipment i.e. selling CFL at an equivalent cost of an incandescent light bulb; and/or where a household require more than four CFLs, additional CFL may be sold at an equivalent cost of an incandescent light bulbs]
- [Restricting the number of free (CFLs) lamps per household distributed through the project activity to six]
- Door-to-door distribution of CFL to households (where direct installation is not possible) and collection of incandescent light bulbs which are to be replaced.
- CFL distribution and incandescent light bulb collection can take place via a dedicated distribution point advertised in the local media by SSC-CPA implementer.

**Action to encourage ongoing participation and involvement of communities and stakeholders**

- A Local Liaison Officer will be appointed for the duration of the distribution and installation of CFLs.

**Action to encourage installation of CFLs in high use are**

[Describe action that SSC-CPA will undertake to encourage installation of CFLs in high use areas from the option below]

- CFL installer will receive adequate training including specific guideline and education that CFL should be installed in high usage areas such as communal areas in the home;
- 
- Where direct installation is not possible, SSC-CPA implementer shall educate the recipient to install CFLs in high usage areas. The methods of education may include but not limited to verbal education, leaflets contained in CFL packs;

**Confirmation that the project activity is a voluntarily coordinated action**

- SSC-CPA implementer, CFL suppliers and participating households are made aware that their activities are being subscribed to the PoA;
- SSC-CPA implementer, CFL suppliers and participating households are made aware from the start and agree that that their participation in the SSC-CPA is voluntary and CER revenue from the SSC\_CPA belongs to the coordinating and managing entity, Icimi Ltd.

**Incandescent Light Bulbs Destruction and Verification**

SSC-CPA implementer will arrange for the following activities to be carried out:

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- Collect replaced incandescent light bulbs at the time of CFL installation, during Door-to-door distribution to each household and at distribution point advertised in the local media by SSC-CPA implementer;
- Record details including nameplate and wattage of collected incandescent light bulbs;
- Assemble replaced incandescent light bulbs collected during CFL installation/distribution at a central point/warehouse;
- Determine/count the number of incandescent light bulbs collected including nameplate and wattage. Although, due to the large number of incandescent light bulbs, individual counting may be impossible;
- Deliver collected incandescent light bulbs to waste disposal agency(s) where they will be destroyed according to applicable environmental norms or as stipulated in the AMS-ILJ, version 4 methodology;
- Commission qualified third party(s) to carry out periodic audit to independently verify the destruction and if applicable scrapping/recycle of incandescent light bulbs collected during the SSC-CPA;
- Qualified third party(s) pay random visit(s) to the central point/warehouse where incandescent light bulbs are assembled prior to delivery to waste disposal agency(s), to ensure that collection and storage of incandescent bulbs are correct and consistent with applicable environmental norms. Although, due to the large number of incandescent light bulbs, individual counting may be impossible;
- Qualified third party(s) pay random visit(s) to waste disposal agencies/sanitary landfill to verify the destruction and if applicable scrapping/recycle of incandescent light bulbs follow environmentally acceptable norms;
- Qualified third party(s) will record/report on the collection, storage, destruction and if applicable, scrapping/recycle of incandescent light bulbs, to demonstrate compliance with monitoring requirements. The record/report will be available to DOE for verification.

**CFL Recycling**

[insert brief description of SSC-CPA implementer procedure/plan to recycle Mercury from CFL, (if applicable)]

- [Establishment of a dedicated local centre where participating households can drop-off broken CFLs, and exchange fused or faulty CFLs for new ones - free of charge - within the first 12 months of CFL installation, upon production of residential proof]
- [Recycle of fuse/faulty and broken CFLs if recycling centre/service is available in SSC-CPA location. Otherwise, dispose according to applicable nation environmental norm]
- [Where required by regulation, appoint qualified third party to verify recycle of fused/faulty or broken CFLs and make third party report/record of recycling available to DOE].

**Record Keeping**

SSC-CPA implementer will establish a secure, well-defined database for the SSC-CPA. The SSC-CPA database will include the following information:

- The physical geographic location of each CFL distributed and installed;

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- The specifications i.e. nameplate and rated power of incandescent light bulbs exchanged and CFLs distributed/installed in households participating in the SSC-CPA;
- Number of pieces of CFL distributed/installed and date of distribution/installation;
- Number of pieces of incandescent light bulbs replaced and date replacement took place;
- The name, address and if applicable, NEPA/PHCN/Official electricity bill folio number of CFL recipients;
- Signature of CFL recipients that they relinquish any rights over the CERs generated from the project CFLs to the coordinating/managing entity, Icimi Ltd;
- Record of destruction of incandescent light bulbs;
- If applicable, record of recycle of fuse/faulty and broken CFLs.

**Procedures to avoid double-counting**

- SSC-CPA has unique geographical boundary which is determined by the location of households where CFLs are installed;
- SSC-CPA will record CFL distribution/installation in the SSC-CPA database;
- Ownership of CERs from the SSC-CPA belongs to the coordinating/managing entity alone;
- SSC-CPA implementer and households participating in the SSC-CPA will sign paperwork voluntarily agreeing that CERs generated from the SSC-CPA belongs to the coordinating/managing entity, Icimi Ltd, and relinquishing any rights over the CERs generated from the SSC-CPA;
- CFL supplier will sign a contractual agreement that will unequivocally states that the ownership of all carbon rights and CERs generated from the SSC-CPA belong to the managing and coordinating entity, Icimi Ltd;
- Before CFLs are installed, participating households will be asked whether they have received CFLs as part of another CDM project; any household that had previously received CFLs as part of CDM project will be excluded from the SSC-CPA and will not receive project CFLs.

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

[insert name of SSC-CPA implementer] is the CPA implementer.

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

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

Energy Efficiency of Nigeria’s Residential Lighting Stock by Distributing up to 40 Million Compact Fluorescent Lamps (CFL) to Residential Households Connected to the National Grid- – [insert location of SSC-CPA], CPA [insert CPA number]

**A.4.1.1. Host Party:**

Federal Republic of Nigeria

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

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The SSC-CPA location is grid connected residential households in [insert location of SSC-CPA], [insert brief description of the location of the SSC-CPA, in not more than 50 words].

The spatial boundary of the SSC\_CPA is defined by the physical location of the each household that received CFLs.

The SSC\_CPA will record name, house number, address and where applicable, electricity bill folio of households taking part in the SSC-CPA. Each CFL that is being distributed will carry a unique identification (such as serial number) linking it to the SSC-CPA.

Figure 1: Map of Nigeria



Figure 2: [insert map of the location of SSC-CPA]

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

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

[insert start date of the SSC-CPA using the following format: dd/mm/yyyy]

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

10 years

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

**Fixed Crediting Period**

**A.4.3.1. Starting date of the crediting period:**

[insert the start date of the SSC-CPA crediting period using the following format: dd/mm/yyyy]

The specified date is the date at which the CFL distribution for the SSC-CPA shall be completed and monitoring shall commence. Given that the crediting period cannot commence before the registration of the PoA, the above date may change if the PoA registration is not concluded before the date.

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

10 years

NOTE: Please note that the duration of crediting period of any CPA shall be limited to the end date of the PoA regardless of when the CPA was added.

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

<b>Year</b>	<b>Estimation of emission reductions in (tonnes of CO<sub>2</sub> e)</b>
1	[insert figure]
2	[insert figure]
3	[insert figure]
4	[insert figure]
5	[insert figure]
6	[insert figure]
7	[insert figure]
8	[insert figure]
9	[insert figure]
10	[insert figure]
<b>Total Emission Reduction (tonnes of CO<sub>2</sub> e)</b>	[insert figure]

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Years	[insert figure]
Average annual emission reduction (tonnes of Co2 e)	[insert figure]

**A.4.5. Public funding of the CPA:**

Choose one of the following options below:

[There is no public funding from Annex 1 Parties for this SSC-CPA] or,

[If public funding is received by SSC-CPA(s) in the PoA, the SSC-CPA will affirm that such funding does not result in diversion of ODA and is separate from and is not counted towards the financial obligations of those parties]

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

As confirmed by section A.4.4.1 (iii) of the corresponding SSC-PoA, the maximum wattage of incandescent light bulbs that will be replaced under this SSC-CPA is 200W. Therefore the maximum annual energy saving potential from an independent subsystem is less than 1% of the small-scale threshold and as a result, the SSC-CPA is exempt from performing a de-bundling check.

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

It is confirmed that the SSC-CPA is neither registered as an individual CDM project activity or as 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:**

PoA Title: Energy Efficiency of Nigeria's Residential Lighting Stock by Distributing up to 40 Million Compact Fluorescent Lamps (CFLs) to Residential Households Connected to the National Grid.

Registration date: [dd/mm/yyyy]

PoA Ref: [insert PoA version]

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



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**The proposed SSC-CPA is eligible for inclusion in the PoA because it satisfies each of the criteria given in section A.4.2.2. of the SSC-CDM-PoA-DD, outlined below:**

- SSC-CPA will conform to the PoA and follows the baseline and monitoring methodology AMS II.J version 4;
- CFLs distributed/installed by the SSC-CPA will be to grid-connected residential households within the geographical boundary of Nigeria;
- Leakage, additionality, baseline emissions, eligibility and double counting are clearly defined and compliant with AMS II.J/Version 4;
- The proposed SSC-CPA is not registered, or is being registered, as a stand-alone CDM project or as part of another PoA other than the proposed project;
- SSC-CPA will meet the de-bundling rules set out in EB 54, Annex 13, Guidelines for Assessment of De-bundling for SSC Project Activities (Version 3);
- The SSC-CPA will ensure that there is no other registered and operating SSC-CPA or CDM project concern with the distribution of energy efficient lighting bulbs within the specified geographical location/area;
- SSC-CPA will apply daily operational hours of 3.5 hours per 24 hour period;
- The SSC-CPA will have the approval of the coordinating/managing entity and validation of the DOE;
- If CPA implementer is outsourced, contractual agreement signed between Icimi Ltd and CPA implementer;
- SSC-CPA must be uniquely identified and defined in an unambiguous manner by providing detailed geographic information, the exact start date and end date of the crediting period;
- The SSC-CPA has unambiguously established baseline scenario, baseline emissions, defined and accounted for leakage, additionality, eligibility and deal with double counting thoroughly and conservatively.

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

Barrier Analysis is used for the assessment and demonstration of additionality for a typical SSC-CPA. Section A.4.3 of the PoA-DD describes the barrier at the PoA level. The argument submitted in Section A.4.3of PoA-DD is relevant and applicable to the SSC-CPA.

The SSC-CPA involves the distribution of free CFLs or the provision of CFL(s) at an equivalent price of an incandescent light bulb to grid connected households in Nigeria. The CPAs included in the PoA will not generate any financial benefit other than CDM related income when CFLs are distributed free-of-charge. Furthermore, the provision of CFLs at an equivalent price of incandescent light bulbs will only generate very little and non-material revenue and negative NPV/return in the absence of CDM due to the upfront costs of purchasing and distributing CFLs. Therefore, investment barrier is a key barrier to the SSC-CPA implementation.

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A simple cost analysis showing the project activities NPV with and without CDM consideration is used to demonstrate investment barrier faced by the project in the absence of CDM.

Option	NPV \$
SSC-CPA NPV without CDM Consideration	
SSC-CPA NPV with CDM Consideration	

[From the above options, when the SSC-CPA is carried out without CDM consideration the NPV is negative/NPV is more negative and therefore is additional].

**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 PoA covers the geographical boundary of Nigeria. [insert location of SSC-CPA], the location of the proposed SSC-CPA is within the geographical boundary of Nigeria. Therefore the proposed SSC-CPA is within the geographical scope of the PoA.

The SSC-CPA will replace incandescent light bulbs with CFLs in residential households that are connected to the national grid. The Nigerian grid is powered by hydropower and thermal, and is primarily fossil fuel based.

Compared to incandescent light bulbs, CFLs increase the energy efficiency of lighting, resulting in less fossil fuel being used to produce electricity for a given quantity of lighting. Therefore the proposed SSC-CPA will reduce CO<sub>2</sub> emissions by decreasing the consumption of power generated from fossil fuels in the Nigerian grid.

	Source	Gas	Included	Justification
<b>Baseline</b>	Power plants serving the electricity grid	CO <sub>2</sub>	Yes	Main Emission source.
		CH <sub>4</sub>	No	Minor source, deemed negligible.
		N <sub>2</sub> O	No	Minor source, deemed negligible.
<b>Project Activity</b>	Power plants serving the electricity grid	CO <sub>2</sub>	Yes	Main Emission source.
		CH <sub>4</sub>	No	Minor source, deemed negligible.
		N <sub>2</sub> O	No	Minor source, deemed negligible.

**B.5. Emission reductions:**

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

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<b>Data / Parameter:</b>	<b>NES<sub>y</sub></b>																						
Data unit:	kWh																						
Description:	Net electricity saved in year y																						
Source of data used:	Result of calculation using the equation in paragraph 12, AMS-II.J version 4 methodology																						
Value applied:	<table border="1"> <thead> <tr> <th>Year</th> <th>NES</th> </tr> </thead> <tbody> <tr><td>1</td><td>[insert value of NES]</td></tr> <tr><td>2</td><td>[insert value of NES]</td></tr> <tr><td>3</td><td>[insert value of NES]</td></tr> <tr><td>4</td><td>[insert value of NES]</td></tr> <tr><td>5</td><td>[insert value of NES]</td></tr> <tr><td>6</td><td>[insert value of NES]</td></tr> <tr><td>7</td><td>[insert value of NES]</td></tr> <tr><td>8</td><td>[insert value of NES]</td></tr> <tr><td>9</td><td>[insert value of NES]</td></tr> <tr><td>10</td><td>[insert value of NES]</td></tr> </tbody> </table>	Year	NES	1	[insert value of NES]	2	[insert value of NES]	3	[insert value of NES]	4	[insert value of NES]	5	[insert value of NES]	6	[insert value of NES]	7	[insert value of NES]	8	[insert value of NES]	9	[insert value of NES]	10	[insert value of NES]
Year	NES																						
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8	[insert value of NES]																						
9	[insert value of NES]																						
10	[insert value of NES]																						
Justification of the choice of data or description of measurement methods and procedures actually applied :	In accordance with Methodology AMS-II.J version 4																						
Any comment:	-																						

<b>Data / Parameter:</b>	<b>LFR<sub>i,y</sub></b>																				
Data unit:	Number																				
Description:	% of lamp failure rate for equipment type i in year y																				
Source of data used:	Ex ante figure calculated using the equation in paragraph 14 of AMS-II.J version 4 methodology <i>EX post</i> figure will be derived from <i>ex post</i> monitoring survey																				
Value applied:	<table border="1"> <thead> <tr> <th>Yr</th> <th>LFR</th> </tr> </thead> <tbody> <tr><td>1</td><td>[insert value of LFR]</td></tr> <tr><td>2</td><td>[insert value of LFR]</td></tr> <tr><td>3</td><td>[insert value of LFR]</td></tr> <tr><td>4</td><td>[insert value of LFR]</td></tr> <tr><td>5</td><td>[insert value of LFR]</td></tr> <tr><td>6</td><td>[insert value of LFR]</td></tr> <tr><td>7</td><td>[insert value of LFR]</td></tr> <tr><td>8</td><td>[insert value of LFR]</td></tr> <tr><td>9</td><td>[insert value of LFR]</td></tr> </tbody> </table>	Yr	LFR	1	[insert value of LFR]	2	[insert value of LFR]	3	[insert value of LFR]	4	[insert value of LFR]	5	[insert value of LFR]	6	[insert value of LFR]	7	[insert value of LFR]	8	[insert value of LFR]	9	[insert value of LFR]
Yr	LFR																				
1	[insert value of LFR]																				
2	[insert value of LFR]																				
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9	[insert value of LFR]																				

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	10	[insert value of LFR]
Justification of the choice of data or description of measurement methods and procedures actually applied :	<p>The ex-ante LFR calculated value is corrected as per the ex post monitoring survey as follows:</p> <p>If the ex post monitoring surveys indicate that the failure rate is equal to or less than the LFR<sub>i,y</sub> value for subsequent years LFR<sub>i,y</sub> shall continue to be determined using Equation (4), above.</p> <p>However, for subsequent years, L<sub>i</sub> values in LFR<sub>i,y</sub> equation in paragraph 14, AMS-II.J version 4 shall be adjusted if the ex post monitoring surveys indicate that the failure rate (LFR<sub>i,y</sub>) is greater than the value indicated using the equation in paragraph 14, AMS-II.J version with Average Life or prior year, ex post monitoring values. In this situation, a new value for L<sub>i</sub> shall be determined using the equation in paragraph 14, AMS-II.J version 4 and new values of LFR<sub>i,y</sub> shall be used beginning from the first calculation year after completion of the ex post survey.</p>	
Any comment:	-	

<b>Data / Parameter:</b>	<b>Q<sub>PJ,i</sub></b>
Data unit:	Number
Description:	Number of CFLs distributed/installed under the project activity
Source of data used:	Determined by the SSC-CPA database
Value applied:	[insert estimated number of CFL to be distributed]
Justification of the choice of data or description of measurement methods and procedures actually applied :	The exact number of CFL that is distributed ex post will be based on the actual value recorded in the SSC-CPA database.
Any comment:	The number of CFLs distributed to households shall be equal to or less than the documented number of all baseline incandescent lamp destroyed.

<b>Data / Parameter:</b>	<b>P<sub>i, BL</sub></b>
Data unit:	Watts
Description:	Rated power of the baseline ICLs of the group of “i”
Source of data used:	<i>Ex ante</i> rated power of the baseline ICLs replaced, determined by baseline study  <i>Ex post</i> rated power of the baseline ICLs replaced, determined from SSC-CPA database.
Value applied:	[insert estimated value]
Justification of the choice of data or description of	Project implementer will formulate and maintain a standardized data recording formats and SSC-CPA database approved by the coordinating/managing entity, for the SSC-CPA. The database will store the watts of baseline ICLs replaced

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measurement methods and procedures actually applied :	and will be part of SSC-CPA implementer record keeping.  <i>Ex post:</i> Actual watts of ICL replaced will be based on the actual value recorded in the SSC-CPA database
Any comment:	-

<b>Data / Parameter:</b>	<b>P<sub>i,PJ</sub></b>
Data unit:	Watts
Description:	Rated power of the project CFLs of the group of “i”
Source of data used:	<i>Ex ante</i> rated power of installed CFLs, forecasted by CPA implementer  <i>Ex post</i> rated power of installed CFLs, determined from SSC-CPA database
Value applied:	[insert estimated value]
Justification of the choice of data or description of measurement methods and procedures actually applied :	Project implementer will formulate and maintain a standardized data recording formats and SSC-CPA database approved by the coordinating/managing entity, for the SSC-CPA. The database will store the wattage of project CFLs distributed/installed and will be part of SSC-CPA implementer record keeping.  <i>Ex post:</i> Actual watts of CFL distributed/installed will be based on the actual value recorded in the SSC-CPA database.
Any comment:	-

<b>Data / Parameter:</b>	<b>ES<sub>i</sub></b>																						
Data unit:	kWh																						
Description:	Estimated annual electricity savings for equipment type i, for the relevant technology																						
Source of data used:	Based on result of calculation using the equation in paragraph 12, AMS-II.J version 4, methodology																						
Value applied:	<table border="1"> <thead> <tr> <th>Yr</th> <th>ES</th> </tr> </thead> <tbody> <tr><td>1</td><td>[insert value of ES ]</td></tr> <tr><td>2</td><td>[insert value of ES ]</td></tr> <tr><td>3</td><td>[insert value of ES ]</td></tr> <tr><td>4</td><td>[insert value of ES ]</td></tr> <tr><td>5</td><td>[insert value of ES ]</td></tr> <tr><td>6</td><td>[insert value of ES ]</td></tr> <tr><td>7</td><td>[insert value of ES ]</td></tr> <tr><td>8</td><td>[insert value of ES ]</td></tr> <tr><td>9</td><td>[insert value of ES ]</td></tr> <tr><td>10</td><td>[insert value of ES ]</td></tr> </tbody> </table>	Yr	ES	1	[insert value of ES ]	2	[insert value of ES ]	3	[insert value of ES ]	4	[insert value of ES ]	5	[insert value of ES ]	6	[insert value of ES ]	7	[insert value of ES ]	8	[insert value of ES ]	9	[insert value of ES ]	10	[insert value of ES ]
Yr	ES																						
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9	[insert value of ES ]																						
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Justification of the choice of data or description of measurement methods and procedures actually applied :	In accordance with Methodology AMS-II.J version 4
Any comment:	-

<b>Data / Parameter:</b>	<b>O<sub>i</sub></b>
Data unit:	Hours per day
Description:	Average daily operating hours of incandescent light bulbs replaced
Source of data used:	A default value prescribed by methodology AMS-II.J version 4
Value applied:	3.5 hours per 24 hrs period
Justification of the choice of data or description of measurement methods and procedures actually applied :	A default Value in accordance with AMS-II.J version 4 methodology
Any comment:	-

<b>Data / Parameter:</b>	<b>TD<sub>y</sub></b>
Data unit:	Number
Description:	Average annual technical grid losses.
Source of data used:	AMS-II-J version 4 guideline
Value applied:	10%
Justification of the choice of data or description of measurement methods and procedures actually applied :	The transmission and distribution losses data from host country cannot be ascertained with accuracy, thus the default value of 0.1, is used as the grid losses, in accordance with the AMS-II.J version 4 methodology.
Any comment:	If Technical Grid Losses data from the host country becomes available and such data is ascertained to be accurate and reliable, the project may adopt the use of the TD data from the host country.

<b>Data / Parameter:</b>	<b>NTG</b>
Data unit:	Number
Description:	Net-to-gross adjustment factor
Source of data used:	Methodology AMS-II.J version 4
Value applied:	0.95
Justification of the	A default Value in accordance with AMS-II.J version 4

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choice of data or description of measurement methods and procedures actually applied :	
Any comment:	-

<b>Data / Parameter:</b>	<b>Li</b>
Data unit:	Hours
Description:	Rated average life for equipment type i (hours)
Source of data used:	[insert the source of data on rated average life of CFLs ensuring the source’s compliance with IEC 60969 or the laboratory conducting and certifying the tests to determine CFL average life shall comply with the requirements of a relevant national or international standard]
Value applied:	[insert rated average life of CFL]
Justification of the choice of data or description of measurement methods and procedures actually applied :	In accordance with AMS-II.J version 4 methodology
Any comment:	CFL life specification may vary due to availability. CFLs with a minimum rated life of 10,000 hours will be used in the project activity.

<b>Data / Parameter:</b>	<b>y</b>
Data unit:	Number
Description:	Counter for year
Source of data used:	As per SSC-CPA database
Value applied:	Determined as a yearly figure from the SSC-CPA database
Justification of the choice of data or description of measurement methods and procedures actually applied :	The SSC-CPA database will contain the counter for year number.
Any comment:	-

<b>Data / Parameter:</b>	<b>Xi</b>
Data unit:	Hours
Description:	Number of operating hours per year for equipment type i
Source of data used:	Derived from calculation: 3.5hrs (default value) * 365days (366 days for leap yr)

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Value applied:	1277.5
Justification of the choice of data or description of measurement methods and procedures actually applied :	Default value of 3.5 hours of CFL daily operating hours, based on option 1 of paragraph 11, AMS-II.J version 4 methodology.
Any comment:	-

<b>Data / Parameter:</b>	<b>R<sub>i</sub></b>
Data unit:	Number
Description:	% of lamps of type i operating at the end of rated average life (of CFL)
Source of data used:	AMS-II.J version 4
Value applied:	50%
Justification of the choice of data or description of measurement methods and procedures actually applied :	Default value is consistent with AMS-II.J version 4 Methodology
Any comment:	-

<b>Data / Parameter:</b>	<b>EF<sub>CO2,ELEC,y</sub></b>
Data unit:	tCO <sub>2</sub> /MWh
Description:	The emission factor for the electricity displaced from the grid serving the CPA households, calculated in accordance with AMS-I.D version 17.
Source of data used:	[insert source of data. Ensure calculation data is derived from an official source and is publicly available]
Value applied:	[insert value calculated for EF <sub>CO2,ELEC</sub> ]
Justification of the choice of data or description of measurement methods and procedures actually applied :	Data is calculated using the methodology: “Tool to calculate the emission factor for an electricity system” version to 2.2,
Any comment:	-

Data / Parameter:	<b>ER<sub>y</sub></b>
Data unit:	tCO <sub>2</sub> e
Description:	Emission reductions in year y
Source of data used:	Base on the result of calculation using the equation in paragraph 15, AMS-II.J version 4 methodology



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Value applied:	<b>Yr</b>	<b>ER</b>
	1	[insert value of Emission Reduction in year 1]
	2	[insert value of Emission Reduction in year 2]
	3	[insert value of Emission Reduction in year 3]
	4	[insert value of Emission Reduction in year 4]
	5	[insert value of Emission Reduction in year 5]
	6	[insert value of Emission Reduction in year 6]
	7	[insert value of Emission Reduction in year 7]
	8	[insert value of Emission Reduction in year 8]
	9	[insert value of Emission Reduction in year 9]
	10	[insert value of Emission Reduction in year 10]
Justification of the choice of data or description of measurement methods and procedures actually applied :	In accordance with AMS-II.J version 4 methodology	
Any comment:		

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

**Emission Reduction**

Under AMS-II.J version 4, ex ante calculations are done as per the following steps:

- (i) Estimate the nameplate/rated power (Watts) of the baseline incandescent lamps to be replaced.
- (ii) Operating hours of project (and baseline) lamps is determined using Option 1: A default value of 3.5 hours per 24 hrs period for ‘daily operating hours’, i.e., factor  $O_i$  in equation 2, is chosen ex ante and is used ex post throughout the crediting period. In this case no surveying to determine  $O_i$  is required.
- (iii) Calculate the annual gross electricity savings by comparing the nameplate/rated power rating of the CFL with that of the baseline incandescent lamp and multiplying by (i) annual hours of operation and (ii) the estimated number of CFLs that are part of the project. If more than one type (wattage) of CFL is to be used, repeat calculation for each type;
- (iv) Calculate the annual net electricity saving (NES), for each year of the assumed crediting period, by correcting the gross electricity savings for leakage, a net-to-gross adjustment (NTG) factor, transmission & distribution losses, and Lamp Failure Rate

**The electricity saved by the project activity in year y is calculated as indicated in equations (1) and (2) as follows:**

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$$NES_y = \sum_{i=1}^n Q_{PJ,i} \times (1 - LFR_{i,y}) \times ES_i \times \frac{1}{(1 - TD_y)} \times NTG \quad (1)$$

Where:

$$ES_i = (P_{i,BL} - P_{i,PJ}) \times O_i \times 365 / 1000 \quad (2)$$

Parameter	Details
$NES_y$	Net electricity saved in year y (kWh)
$QPJ_i$	[insert the number of CFLs distributed/installed under the SSC-CPA]
$ES_i$	Estimated annual electricity savings for equipment of type i, for the relevant technology (kWh) (Result of equation 2)
$LFR_{i,y}$	Lamp Failure Rate for equipment type i in year y (fraction) (Result of equation 3)
$TD_y$	0.1
$NTG$	0.95
$P_{i,BL}$	[insert estimated rated power (watts) of incandescent light bulbs to be replaced]
$P_{i,PJ}$	[insert estimated rated power (watts) of CFLs to be distributed/installed]
$O_i$	3.5 hours per 24 hour period

**The Lamp Failure Rate (LFR<sub>i,y</sub>) is the % of lamps that have failed during a year. The average life or the rated average life is used to calculate the Lamp Failure Rate as follows:**

$$\text{If } y * X_i < L_i, LFR_{i,y} = y * X_i * (100 - R_i) / (100 * L_i) \quad (3)$$

$$\text{If } y * X_i > \text{or} = L_i, LFR_{i,y} = 1$$

Where

Parameter	Details
$LFR_{i,y}$	Lamp Failure Rate for equipment type i in year y (fraction)
$L_i$	[insert rated average life of CFLs] hours
$R_i$	0.5
$X_i$	1,227.50 hours
$y$	Counter for year

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**Emissions reduction is net electricity savings (NES) times an Emission Factor (EF) calculated in accordance with provisions under AMS-I.D.**

$$ER_y = NES_y \times EF_{CO_2,ELEC,y} \quad (4)$$

Where

Parameter	Details
<b>ER<sub>y</sub></b>	Emission Reductions in year y (tCO <sub>2</sub> e)
<b>EF<sub>CO<sub>2</sub>,ELEC,y</sub></b>	[insert emission factor in year y] (tCO <sub>2</sub> e)  Calculated in accordance with the provisions in AMS-I.D Version 17

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

>>

Year	Estimation of project activity emissions (tonnes of CO <sub>2</sub> e)	Estimation of baseline emissions (tonnes of CO <sub>2</sub> e)	Estimation of leakage (tonnes of CO <sub>2</sub> e)	Estimation of overall emission reductions (tonnes of CO <sub>2</sub> e)
2012	[insert figure]	[insert figure]	0	[insert figure]
2013	[insert figure]	[insert figure]	0	[insert figure]
2014	[insert figure]	[insert figure]	0	[insert figure]
2015	[insert figure]	[insert figure]	0	[insert figure]
2016	[insert figure]	[insert figure]	0	[insert figure]
2017	[insert figure]	[insert figure]	0	[insert figure]
2018	[insert figure]	[insert figure]	0	[insert figure]
2019	[insert figure]	[insert figure]	0	[insert figure]
2020	[insert figure]	[insert figure]	0	[insert figure]
2021	[insert figure]	[insert figure]	0	[insert figure]
<b>Total</b> (tonnes of CO <sub>2</sub> e)	[insert figure]	[insert figure]	<b>0</b>	[insert figure]

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

**B.6.1. Description of the monitoring plan:**

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The project activity abides by the monitoring guidelines stipulated in AMS-II.J version 4 and will monitor the following parameters according to the monitoring plan described in section E.7.2 of the related SSC-PoA-DD document:

- SSC-CPA Database - Recording of Lamp distribution data
- Ex post monitoring surveys
- PoA programme Database
- Incandescent Light Bulbs Destruction and Verification
- CFL Destruction and Verification
- Roles & Responsibilities of Coordinating/managing entity and SSC-CPA Implementer

[insert detailed description of the record keeping system that the SSC-CPA implementer will employ to monitor Lamp Distribution Data (i) specifying the data that would be captured in the system, and the operational process to ensure accuracy, consistency and data quality, as well as compliance with the record keeping guidelines outlined in the PoA document to which the SSC-CPA relates, which are outlined below:]

Project implementer will formulate and maintain a standardized data recording formats and SSC-CPA database approved by the coordinating/managing entity. Therefore, for the SSC-CPA to maintain appropriate records on lamp distribution, project implementer will document the following variables inter-alia:

- The physical geographic location of each CFL distributed and installed;
- Number of pieces of CFL distributed/installed and date of distribution/installation;
- Number of pieces of incandescent light bulbs replaced and date replacement took place;
- The specifications i.e nameplate and rated power of incandescent light bulbs exchanged and CFLs distributed and installed in households participating in the CPA;
- Unambiguous identification, including name, address and if applicable, NEPA/PHCN electricity bill folio number of CFLs recipient.
- Signature of CFL recipient that they relinquish any rights over the CERs generated from the project CFLs to the coordinating/managing entity, Icimi Ltd.

**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:**

>>

Not Applicable

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**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:**

>>

Not applicable

**SECTION D. Stakeholders' comments**

>>

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

**X** 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:**

Not Applicable

**D.3. Summary of the comments received:**

Not Applicable

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

Not Applicable

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**Annex 1**

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

Organization:	[insert company name]
Street/P.O.Box:	[insert address]
Building:	[insert address]
City:	[insert address]
State/Region:	[insert address]
Postfix/ZIP:	[insert address]
Country:	[insert address]
Telephone:	[insert contact details]
FAX:	[insert contact details]
E-Mail:	[insert contact details]
URL:	[insert contact details]
Represented by:	[insert name or company details]
Title:	[insert contact details]
Salutation:	[insert contact details]
Last Name:	[insert name]
Middle Name:	[insert name]
First Name:	[insert name]
Department:	[insert contact details]
Mobile:	[insert contact details]
Direct FAX:	[insert contact details]
Direct tel:	[insert contact details]
Personal E-Mail:	[insert contact details]

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**Annex 2**

**INFORMATION REGARDING PUBLIC FUNDING**

Choose one of the following options below:

[There is no public funding from Annex 1 Parties for this SSC-CPA] or,

[If public funding is received by SSC-CPA(s) in the PoA, the SSC-CPA will affirm that such funding does not result in diversion of ODA and is separate from and is not counted towards the financial obligations of those parties]

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**Annex 3**

**BASELINE INFORMATION**

**Baseline Scenario**

The baseline scenario is identified ex ante and ex post identification is based on the ex post monitoring surveys.

**Emission Factor (EF) Calculation**

As stipulated in paragraph 15 of AMS-II.J version 4, Emission Factor (EF) should be calculated in accordance with provisions under of AMS-I.D. “The tool to calculate the emission factor or an electricity system” version 2.2 (hereforth “Tools”) will be used to calculate the parameters.

In order to calculate the CO<sub>2</sub> emission factor for the project electricity systems, three parameters will be applied, namely: Operating Margin (OM), Build Margin (BM) and Combined Margin (CM). The parameters are to be calculated using data from an official source (where available) and made publicly available.

**Baseline Methodology Procedure**

**Step 1.** Identify the relevant electric power system

**Step 2.** Choose whether to include off-grid power plants in the project electricity system (optional).

**Step 3.** Select a method to determine the operating margin (OM)

**Step 4.** Calculate the operating margin emission factor according to the selected method

**Step 5.** Calculate the build margin emission factor

**Step 6.** Calculate the combined margin (CM) emissions factor

**Additionality**

To comply with the guidance given in attachment A to Appendix B of the ‘simplified modalities and procedures for small-scale CDM project activities’,

Barrier Analysis is used for the assessment and demonstration of additionality for a typical SSC-CPA. Section A.4.3 of the PoA-DD describes the barrier at the PoA level. The argument submitted in Section A.4.3of PoA-DD is relevant and applicable to the SSC-CPA.

A simple cost analysis showing the project activities NPV with and without CDM consideration is used to demonstrate investment barrier faced by SSC-CPA in the absence of CDM.



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**Annex 4**

**MONITORING INFORMATION**

Monitoring includes recording of lamp distribution data, and ex post monitoring surveys of Lamp Failure Rate (LFR<sub>i,y</sub>)

Paragraph 19 of AMS-II.J version 4 states:

During project activity implementation, the following data are to be recorded:

- Number of pieces of equipment distributed under the project activity, identified by the type of equipment and the date of supply;
- The number and power of the replaced devices;
- Data to unambiguously identify the recipient of the equipment distributed under the project activity;

The project activity abides by the above monitoring guidelines defined in AMS-II.J version 4 as follows. (For further details, refer to Section D.7.1 for the details of the parameters to be monitored and the measures that will be taken to monitor each of the parameter).

[insert detailed description of the record keeping system that the SSC-CPA implementer will employ to monitor Lamp Distribution Data (i), specifying the data that would be captured in the system, and the operational process to ensure accuracy, consistency and data quality, as well as compliance with the record keeping guidelines outlined in the PoA document to which the SSC-CPA relates, which are outlined below:]

Project implementer will formulate and maintain a standardized data recording formats and SSC-CPA database approved by the coordinating/managing entity. Therefore, for the SSC-CPA to maintain appropriate records on lamp distribution, project implementer will document the following variables inter-alia:

- The physical geographic location of each CFL distributed and installed;
- Number of pieces of CFL distributed/installed and date of distribution/installation;
- Number of pieces of incandescent light bulbs replaced and date replacement took place;
- The specifications i.e nameplate and rated power of incandescent light bulbs exchanged and CFLs distributed and installed in households participating in the CPA;
- Unambiguous identification, including name, address and if applicable, NEPA/PHCN electricity bill folio number of CFLs recipient.
- Signature of CFL recipient that they relinquish any rights over the CERs generated from the project CFLs to the coordinating/managing entity, Icimi Ltd.

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**PoA Programme Database**

The coordinating/managing entity will establish a secure, well-defined and adequate data management system. The established PoA database will record, store, monitor and secure all information relevant to the entire project activity and all SSC-CPAs undertaken as part of the project activities. The database will be fully backed.

The PoA database will record the start and end dates of each monitoring period and the emission reduction attributable to the monitoring period per SSC-CPA. The monitoring plan is designed to eliminate risk of double-counting between SSC-CPAs. Therefore rigorous record keeping procedures that include mutually exclusive dataset per SSC-CPA would be implemented to ensure that each monitoring period dataset can be transparently attributed to its corresponding SSC-CPA in order to prevent occurrence of double counting.

The PoA database will include the following data-set for each SSC-CPA:

- The physical geographic location of SSC-CPA;
- Number of pieces of CFL distributed/installed and date of distribution/installation;
- Number of pieces of incandescent light bulbs replaced and date replacement took place;
- The specifications i.e. nameplate and rated power of incandescent light bulbs exchanged and CFLs; distributed and installed in households participating in the SSC-CPA;
- Unambiguous identification, including name, address and if applicable, NEPA/PHCN electricity bill folio number of CFLs recipient;
- Record of signature of CFL recipient that they relinquish any rights over the CERs generated from the project CFLs to the coordinating/managing entity, Icimi Ltd.
- Verification records including number of incandescent light bulbs destroyed and date of destruction
- CFL purchase and dispatch records, to prevent double counting;
- Lamp failure rates, determined by the ex post monitoring survey representing that SSC-CPA for each monitoring period.

Paragraph 20 of AMS-II.J version 4 states:

The following survey principles shall be followed for activities related to determining number of CFLs placed in service and operating under the project activity and, if required, determining the number of operating hours of baseline and project lamps:

- The sampling size is determined by minimum 90% confidence interval and the 10% maximum error margin; the size of the sample shall be no less than 100;
- Sampling must be statistically robust and relevant i.e., the survey has a random distribution and is representative of target population (size, location);
- The method to select respondents for interviews is random;
- The survey is conducted by site visits;
- Only persons over age 12 are interviewed;
- The project document must contain the design details of the survey.

**SMALL-SCALE CDM PROGRAMME ACTIVITY DESIGN DOCUMENT FORM  
(CDM-SSC-CPA-DD) - Version 01**



**NAME /TITLE OF THE PoA:** Energy Efficiency of Nigeria’s Residential Lighting Stock by Distributing up to 40 Million Compact Fluorescent Lamps (CFLs) to Residential Households Connected to the National Grid.



**Outline of Sampling Methodology**

Sampling objectives	<p>The objective of sampling for the purpose of the project activity is to ascertain a statistically sound estimate of key variables that are used to calculate the emission reduction from the project activities based on a 90% confidence interval and 10% minimum error margin.</p> <p>The two variables are:</p> <ul style="list-style-type: none"> <li>• The number of CFLs placed in service and operating under the project activities (QPJ,i)</li> <li>• Lamp fail rate (LFR,y)</li> </ul>
Data To Be collected	<p><b><u>The number of CFLs placed in service and operating under the project activities (QPJ,i)</u></b></p> <ul style="list-style-type: none"> <li>• Survey will be carried out through site visits to project households that have been randomly selected from the SSC-CPA database.</li> <li>• Sample data will be collected on only installed CFLs with an original marking (coordinating/managing entity’s logo or unique identification details). Only those CFLs can be counted as installed;</li> <li>• SSC-CPA plan to replace faulty or defective CFLs within 1 year of installation. Such CFL will be replaced as part of a regular maintenance or warranty program and will be counted as operating for the purpose of determining QPJ,i;</li> <li>• CFLs cannot be replaced as part of this monitoring survey process and counted as operating for the purposes of determining QPJ,i.</li> <li>• Only persons over age 12 are interviewed for the survey</li> </ul> <p><b><u>Lamp fail rate (LFR,y)</u></b></p> <ul style="list-style-type: none"> <li>• Survey will be carried out through site visits to project households that have been randomly selected from the SSC-CPA database.</li> <li>• Sample data will be collected on only installed CFLs with an original marking (coordinating/managing entity’s logo or unique identification details). Only those CFLs can be counted as installed;</li> <li>• SSC-CPA plan to replace faulty or defective CFLs within 1 year of installation. Such CFL will be replaced as part of a regular maintenance or warranty program and will be counted as operating for the purposes of determining QPJ,i;</li> <li>• CFLs cannot be replaced as part of this monitoring survey process and counted as operating for the purposes of determining QPJ,i.</li> <li>• Only persons over age 12 are interviewed for the survey</li> </ul> <p><b><u>Survey Frequency</u></b></p> <p>The first ex post monitoring survey will be carried out within 12 months of CFL installation. Subsequent ex post monitoring surveys will take place in</p>

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	<p>Years 4, Years 7 and Year 10 (depending on the length of the crediting period). However, SSC-CPA may choose to undertake subsequent ex post monitoring surveys more frequently than once every 3 years. In addition:</p> <ul style="list-style-type: none"> <li>• SSC-CPA will contract a specialist third party such as a chartered surveyor or researcher through a ‘Request for Tender’ to independently collect and collate sample data by means of site visits to sample households.</li> <li>• The sample households will be randomly selected from the SSC-CPA database, as such, specialist contractor will be able to access part of SSC-CPA database containing the list of project households that received CFLs as part of the SSC-CPA.</li> </ul>
Target Population	Households that received CFLs and whose details are recorded and stored in the SSC-CPA database.
Sample Method	The simple random sampling method will be used. Under this method, each project household that received CFLs from the SSC-CPA, and whose details are recorded and stored in the SSC-CPA database is chosen entirely by chance. Hence each project household has equal chance of being included in the sample.
Sample Frame	The sample frame is the list of the project households that received CFLs and whose details are recorded in the SSC-CPA database.
Sample Size	<p>Desired precision/expected variance and sample size are determined as follows: As per AMS-II.J version 4, the sample size will utilise minimum 90% confidence interval and 10% maximum error margin</p> <p><b><u>Equation to determine sample size</u></b></p> $= (z/r)^2 \times p \times 1(1-p)$ $= (1.645/0.1)^2 \times (0.5) \times 1(1- 0.5)$ $= (135.30) * (0.5)$ $= \mathbf{68}$ <p>As per AMS-II.J version 4, the minimum sample size is 100. Therefore a minimum sample size of 100 will be used to determine QPJ,i and LFR,y</p>
“Cluster” of homogenous SSC-CPAs	If there are multiple SSC-CPAs in one geographic location and/or socio-economic population, and the target populations of the SSC-CPAs can be demonstrated to be homogenous, SSC-CPAs will be clustered together and a single representative ex post monitoring survey will be carried out to satisfy monitoring requirements across like SSC-CPAs.

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