



BUREAU  
VERITAS

# VALIDATION REPORT

ZHENJIANG QIANGLING  
ENERGY-SAVING LIGHT SOURCE  
Co.,LTD.

## VALIDATION OF THE CFL DISTRIBUTION PROGRAMME IN JIANGSU PROVINCE

REPORT No. BVC/CHINA-VAL/6074/2011

Revision No. 02

BUREAU VERITAS CERTIFICATION

Great Guildford House, 30 Great Guildford Street  
SE1 0ES - London – United Kingdom



## VALIDATION REPORT

Date of first issue: 22/07/2011	Organizational unit: Bureau Veritas Certification Holding SAS
Client: Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd.	Client ref.: Mr.Sui Naiqing

Summary:

Bureau Veritas Certification has made the validation of CFL Distribution Programme in Jiangsu Province managed by Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd. located in Jiangsu Province(excluding Lianshui County), P.R. China on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent coordinated operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

The validation scope is defined as an independent and objective review of SSC-PoA-DD, generic SSC-CPA-DD and specific SSC-CPA-DD(001-PCDM-JS), the baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the PoA design and the baseline and monitoring plan; ii) follow-up on-site visits and interviews with stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion. The overall validation, from Contract Review to Validation Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the validation process is a list of Clarification and Corrective Actions Requests (CL and CAR), presented in Appendix A. Taking into account this output, the Coordinating/Managing Entity revised its PoA design documents.

In summary, it is Bureau Veritas Certification's opinion that:

The PoA correctly applies the baseline and monitoring methodology AMS II.J. and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria;

The specific CPA correctly applies the baseline and monitoring methodology AMS II.J Version04 and is correctly included in the PoA.

Report No.: BVC/CHINA-Val/6074 /2011	Subject Group: CDM
Project title: CFL Distribution Programme in Jiangsu Province	
Work carried out by: Tim Wang Wei, Team Leader Zeng Ziyuan, Team Member Robin Wang Jing Team Member	
Internal technical Review carried out by: Jasmine Tang Xuemei H.B. Muralinhar	
Date of this revision: 28/03/2012	Rev. No.: 02
Number of pages: 137	

**Indexing terms**

Work approved by:  
Flavio Gomes and (signature)

☒ No distribution without permission from the Client or responsible organizational unit

☐ Limited distribution

☐ Unrestricted distribution

## VALIDATION REPORT

Content	Page
<b>1. INTRODUCTION .....</b>	<b>4</b>
1.1. <i>Objective .....</i>	4
1.2. <i>Scope.....</i>	4
1.3. <i>Validation team and Internal Technical Reviewer .....</i>	4
<b>2. METHODOLOGY .....</b>	<b>5</b>
2.1. <i>Review of Documents.....</i>	5
2.2. <i>Follow-up Interviews .....</i>	6
2.3. <i>Resolution of Clarification and Corrective Action Requests .....</i>	7
2.4. <i>Internal Technical Review .....</i>	7
<b>3. VALIDATION CONCLUSIONS .....</b>	<b>8</b>
3.1. <i>Approval.....</i>	8
3.2. <i>Participation (54).....</i>	9
3.3. <i>PoA &amp; CPA design documents (57) .....</i>	9
3.4. <i>PoA &amp; CPA description (64).....</i>	9
3.5. <i>Operational and management arrangements(166) .....</i>	10
3.6. <i>Eligibility criteria for CPA inclusion(167) .....</i>	11
3.7. <i>Baseline and monitoring methodology .....</i>	15
3.7.1. <i>Baseline and monitoring methodology .....</i>	15
3.7.2. <i>Project boundary .....</i>	17
3.7.3. <i>Baseline identification (87-88) .....</i>	17
3.7.4. <i>Algorithms and/or formulae used to determine emission reductions (92-93) ...</i>	18
3.8. <i>Additionality of PoA &amp; CPA(97).....</i>	23
3.8.1. <i>Prior consideration of CDM.....</i>	23
3.8.2. <i>Investment barrier .....</i>	23
3.9. <i>Monitoring plan (124).....</i>	24
3.10. <i>Local stakeholder consultation (130) .....</i>	26
3.11. <i>Environmental Impacts (133) .....</i>	27
3.12. <i>Compliance of the Specific CPA and the eligibility criteria(168) .....</i>	27
<b>4. COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS .....</b>	<b>30</b>
<b>5. VALIDATION OPINION .....</b>	<b>32</b>
<b>6. REFERENCES .....</b>	<b>33</b>
<b>7. CURRICULA VITAE OF THE DOE'S VALIDATION TEAM MEMBERS.....</b>	<b>38</b>
<b>APPENDIX A: COMPANY CDM PROJECT VALIDATION PROTOCOL.....</b>	<b>40</b>

## 1. INTRODUCTION

Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd. has commissioned Bureau Veritas Certification to validate its CDM POA project CFL Distribution Programme in Jiangsu Province (hereafter called “the Programme”) in Jiangsu Province, P.R. China.

This report summarizes the findings of the validation of the project, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent coordinated operations, monitoring and reporting.

### 1.1. Objective

The validation serves as project design verification and is a requirement of all projects. The validation is an independent third party assessment of the project design. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design, as documented, is sound and reasonable, and meet the stated requirements and identified criteria. Validation is a requirement for all CDM projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

### 1.2. Scope

The validation scope is defined as an independent and objective review of the project design documents, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations.

The validation is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

### 1.3. Validation team and Internal Technical Reviewer

The validation team and internal technical reviewer consist of the following personnel:

## VALIDATION REPORT

FUNCTION	NAME	CODE HOLDER	TASK PERFORMED*
Team Leader	Tim Wang Wei	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input checked="" type="checkbox"/> SV <input checked="" type="checkbox"/> RI
Verifier	Zeng Ziyuan <sup>1</sup>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> DR <input checked="" type="checkbox"/> SV <input type="checkbox"/> RI
Verifier	Robin Wang Jing <sup>2</sup>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI
Technical Specialist	N.A	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI
Financial Specialist	N.A.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI
Internal Technical Reviewer (ITR)	Jasmine Tang Xuemei	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI
Specialist supporting ITR	H.B. Muralidhar	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI

\*DR = Document Review; SV = Site Visit; RI = Report issuance

## 2. METHODOLOGY

The overall validation, from Contract Review to Validation Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a validation protocol was customized for the project, according to the version 01.2 of the Clean Development Mechanism Validation and Verification Manual/1/, issued by the Executive Board at its 55th meeting on 30/07/2010 and version 04.1 of Procedures for registration of a programme of activities as a single CDM project activity and issuance of certified emission reductions for a programme of activities dated 02/08/2010(EB55 Annex38)/2/. The protocol shows, in a transparent manner, criteria (requirements), means of validation and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements a CDM project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The completed validation protocol is enclosed in Appendix A to this report.

### 2.1. Review of Documents

The PoA Design Documents (PoA-DD, generic CPA-DD, specific CPA-DD), submitted by Sino

<sup>1</sup> Zeng Ziyuan had the Code before 17/03/2011 as per BV's internal matrix

<sup>2</sup> Robin Wang Jing has the Code since 17/03/2011 as per BV's internal matrix

## VALIDATION REPORT

Carbon Innovation & Investment Co.,Ltd and additional background documents related to the project design and baseline, i.e. country Law, SSC-PoA-DD form, SSC-CPA-DD form, Approved methodology, Kyoto Protocol, Clarifications on Validation Requirements to be Checked by a Designated Operational Entity were reviewed.

To address Bureau Veritas Certification corrective action and clarification requests, Sino Carbon Innovation & Investment Co.,Ltd revised the design documents and resubmitted it on 28/03/2012 and the validation conclusion presented in this report relate to the project as described in the PoA DD Version03/Ref-2/, Specific CPA DD Version03.1/Ref-3/ and Generic CPA DD./Ref-4/.

## 2.2. Follow-up Interviews

From 21/02/2011 to 23/02/2011, Bureau Veritas Certification performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of the Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd.(the coordinating/management entity), the consultant and local stakeholders were interviewed (see Section 6 References)

The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd.(the coordinating/management entity)	<ul style="list-style-type: none"> <li>➤ Project background information and CDM consideration.</li> <li>➤ PoA technology, general operating and implementation framework, maintenance and monitoring capability</li> <li>➤ Government policies related to CFL projects</li> <li>➤ Confirmation that the proposed PoA is a voluntary action</li> <li>➤ Operation and management arrangement of the PoA(incl. recording, CPA operation, avoiding double accounting )</li> <li>➤ PoA/CPA monitoring and management plan</li> <li>➤ Stakeholder consultation process.</li> <li>➤ PoA/CPA environment impact</li> <li>➤ CFL development in the area</li> </ul>
Local Stakeholder	<ul style="list-style-type: none"> <li>➤ Project background in details</li> <li>➤ Stakeholder comments</li> <li>➤ Social and environmental impact of the Project</li> <li>➤ Baseline information in details</li> <li>➤ Local market information of CFLs and ICLs</li> </ul>

## VALIDATION REPORT

Sino Carbon Innovation & Investment Co., Ltd (the consultant)	<ul style="list-style-type: none"> <li>➤ Applicability of selected methodology.</li> <li>➤ Baseline determination.</li> <li>➤ Eligibility criteria for CPA inclusion</li> <li>➤ Emission reductions calculation.</li> <li>➤ Emission reduction monitoring plan</li> </ul>
---	---

## 2.3. Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification positive conclusion on the project design.

Corrective Action Requests (CAR) is issued, where:

- The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- The CDM requirements have not been met;
- There is a risk that emission reductions cannot be monitored or calculated.
- The operational and management arrangements are not suitable for the PoA being validated.
- The specified eligibility criteria in the PoA-DD are not sufficient to ensure that all CPAs would comply with the CDM requirements applicable to the PoA

Bureau Veritas Certification may also use the term Clarification Request (CL), if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

To guarantee the transparency of the verification process, the concerns raised are documented in more detail in the verification protocol in Appendix A.

## 2.4. Internal Technical Review

The validation report underwent an Internal Technical Review (ITR) before requesting registration of the project activity. The technical review was performed by a qualified technical reviewer.

The ITR is an independent process performed to examine thoroughly that the process of validation has been carried out in conformance with the requirements of the validation scheme as well as internal Bureau Veritas Certification procedures.

The Team Leader provides a copy of the validation report to the reviewer, including any necessary validation documentation. The reviewer reviews the submitted documentation for



## VALIDATION REPORT

conformance with the validation scheme. This will be a comprehensive review of all documentation generated during the validation process.

When performing an Internal Technical Review, the reviewer ensures that:

- The validation activity has been performed by the team by exercising utmost diligence and complete adherence to the CDM rules and requirements.
- The review encompasses all aspects related to the project which includes project design, baseline, additionality, monitoring plans and emission reduction calculations, internal quality assurance systems of the project participant as well as the project activity, review of the stakeholder comments and responses, closure of CARs, CLs and FARs during the validation exercise, review of sample documents.

The reviewer compiles clarification questions for the Team Leader and Validation Team and discusses these matters with Team Leader.

After the agreement of the responses on the 'Clarification Request' from the Team Leader as well as the PP(s) the finalized validation report is accepted for further processing such as uploading on the UNFCCC webpage

### 3. VALIDATION CONCLUSIONS

In the following sections, the conclusions of the validation are stated.

The findings from the desk review of the original PoA design documents and the findings from interviews during the follow up visit are described in the Validation Protocol in Appendix A.

The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Appendix A. The validation of the Project resulted in **3** Corrective Action Requests and **22** Clarification Requests.

The CARs and CLs were closed based on adequate responses from the Project Participant(s) which meets the applicable requirements. They have been reassessed before their formal acceptance and closure.

The number between brackets at the end of each section corresponds to the VVM paragraph.

#### 3.1. Approval

The letter of approval has been received and the following support documentation has been verified by Bureau Veritas Certification:

- ✍ The DNA of China has issued a Letter of Approval (3061) in authorizing Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd. voluntary participating in the PoA of CFL Distribution Programme in Jiangsu Province and confirms the contribution to China's Sustainable development./Ref-5/






---

 VALIDATION REPORT
 

---

Bureau Veritas Certification received the letter of approval from the project participant and does not doubt the letter's authenticity.

The letter of approval does not contain a specific version of both the design documents and the validation report.

The title and contents of the letter of approval refer to the precise proposed PoA title in the design documents being submitted for registration.

✎ Bureau Veritas Certification considers the letters of approval are in accordance with **Para. 45 - 48 /VVM** and **Para.10 of EB55 Annex38**.

### 3.2. Participation (54)

The participation for the coordinating/managing entity has been approved by a Party of the Kyoto Protocol.

✎ Complying with **Para.54/VVM**, Bureau Veritas Certification hereby confirms that by referring to the information on UNFCCC website i.e.

<http://maindb.unfccc.int/public/country.pl?country=CN;>

### 3.3. PoA & CPA design documents (57)

✎ Bureau Veritas Certification hereby confirms that the PoA design documents comply with the latest Small-Scale Programme of Activities Design Document Form(CDM-SSC-PoA-DD) version01 and Small-scale CDM Programme Activity Design Document Form(CDM-SSC-CPA-DD) version01.

### 3.4. PoA & CPA description (64)

#### PoA description

The PoA involves the distribution of high quality long-life CFLs to residential households replacing low efficient ICLs in Jiangsu Province, P.R. China, with the geographical coordinates of north latitude 30°45'~35°20' and east longitude 116°18'~121°57'. The CPAs under the PoA will be implemented throughout Jiangsu Province(excluding Lianshui County), P.R.China. There are no mandatory policies/regulations for the distribution of CFLs in households in China or Jiangsu Province. The PoA is a voluntary action by Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd., which is the coordinating/managing entity. The high quality CFLs will be distributed to residents of Jiangsu province for free or for a minimal fee.

The PoA is to distribute around 50 million high efficient CFLs replacing equal amount of ICLs being used by local residents. The distributed CFLs have an average life longer than 6,000hours, which conforms with national technical standard.(GB/T 17263)./Ref-6/ Compared to the ICLs to be exchanged, the distributed CFLs will have lower rated power and equal or

## VALIDATION REPORT

higher lumen output. The PoA will lead to less electricity consumption of GHG emission at the source of electricity generation in East China Power Grid(ECPG). The length of the PoA is 28 years.

### CPA Description

“CFL Distribution Programme in Jiangsu Province” in Chuzhou District, Huaian City, Jiangsu Province, China(001-PCDM-JS) is a specific CPA under the PoA. The CPA will involve the distribution of appr.1,008,022 CFLs in Chuzhou District, Jiangsu Province, P.R.China. The TCP CFLs to be used in the CPA, have a long average life of 10,000hours. No more than six CFLs will be installed for each household in living room, bedrooms, and kitchen, where the utilization hours are relatively high.

The distribution plan of the CPA is shown as the below Table 2.

Table 2 the distribution plan of the CPA

CFL distributed			ICLs to be exchanged		
Rated Power	Light output	Amount	Rated Power	Light output	Amount
12W	760lumen	944,315	40W	415lumen	503,507
			60W	715lumen	440,808
22W	1450lumen	63,707	100W	1350lumen	63,707

Bureau Veritas Certification has checked the Test Reports of Eco Design Requirements for Non-Directional Household Lamps issued by Aurora International Testing Laboratory dated 25/04/2011/Ref-7/ and 05/05/2011/Ref-8/ and confirms that the technical information of the CFLs, i.e. rated power, average life, light output, is consistent with the test reports and that the international standard IEC60969 was used to test the lifetime of CFL. The total estimated emission reductions are 234,665 tCO<sub>2</sub>e during the fixed crediting period of 7 years and 302 days and the annual average emission reductions are 29,970 tCO<sub>2</sub>e.<sup>3</sup>

### 3.5. Operational and management arrangements(166)

A clear and transparent description of the operational and management arrangements have been established by the management/coordinating entity and stated in the PoA-DD. CPA implementers, or subsidiary CDM working groups will be established. And a technical advisory team will be established to provide experience, training and software support for CPA development and a quality check team will be set up to supervise CPA implementing as requirement. A complete working flow diagram is available too.

There is a record keeping system for each CPA under the PoA.

To avoid double counting, CFL manufacturer and project households will sign agreements with Zhenjiang Qiangling Energy-saving Light Source Co., Ltd. to give up the CERs generated from the project CFL use. Where a CPA of another PoA or CDM project activity is already

<sup>3</sup> 7 years and 302 days are equal to 7.83 years. 234,665/7.83=29970

## VALIDATION REPORT

registered in the same geographic area as a proposed SSC-CPA, the SSC-CPA will not be included in the PoA.

The procedure to check for de-bundling has been included in the PoA-DD. The maximum annual saved electricity from distribution of a CFL will be used for the de-bundling check at CPA level. If the maximum annual saved electricity from distribution of a CFL is lower than 1% of the small-scale thresholds (60GWh per year) defined by the applied methodology AMS-II.J, the CPA can be demonstrated not to be a de-bundled component of another CPA or CDM project activity according to Para. 10 of **EB54 Annex13** "Guidance on assessment of de-bundling for SSC project activities" version 03./6/

The coordinating/management entity will sign an agreement with all SSC-CPA implementers if the CPAs are not implemented by Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd.. Thus Bureau Veritas Certification can conclude that Provisions are in place that the CPA are aware of and have agreed that their activity is being subscribed to the PoA.

Complying with **para.166/VVM** and **EB63 Annex 3/15/**, Bureau Veritas Certification hereby concludes that the operational and management arrangements have been established by the coordinating/managing entity and are suitable for the PoA being validated. Bureau Veritas Certification considers that the arrangements are sufficient to ensure that the coordinating/managing entity will have control of all records and information related to the implementation of individual CPAs.

### 3.6. Eligibility criteria for CPA inclusion(167)

The eligibility criteria has been defined and stated in the PoA-DD. Bureau Veritas Certification has assessed the defined eligibility criteria as below:

Table 3 Eligibility criteria assessment

No.	Eligibility criteria	Bureau Veritas Certification's Assessment
1	The baseline and monitoring methodology AMS-II.J is applied.	This criteria ensures that the applied methodology in each CPA is consistent with the PoA. It is consistent with <b>Para.5 of EB55 Annex38</b> , i.e. a CPA is a single, or a set of interrelated measure(s), to reduce GHG emissions or result in net anthropogenic greenhouse gas removals by sinks, applied within a designated area defined in the baseline methodology/ies.
2	The geographical boundary of the SSC-CPA area is uniquely defined and located in Jiangsu Province (exclude	This criteria ensures that the geographical boundary of the CPAs is within the geographical boundary of the PoA. It is

## VALIDATION REPORT

No.	Eligibility criteria	Bureau Veritas Certification's Assessment
	Lianshui County).	consistent with <b>Para.6(b)</b> of <b>EB55 Annex38</b> , i.e. all CPAs included in the PoA will be within that chosen boundary.
3	The base line technology is Incandescent Lamp being used by SSC-CPA residents. The CFLs distributed in the SSC-CPA are new equipments, and have ballasts integrated to the lamp as a non-removable part.	This criteria ensures that <b>Para.1</b> of <b>AMS-II.J. Version04</b> is applied, i.e. this category comprises activities that lead to efficient use of electricity through the adoption of self-ballasted compact fluorescent lamps (CFLs) to replace incandescent lamps (ICLs) in residential applications. Eligible self-ballasted CFLs have integrated ballasts as a non-removable part. The CFLs adopted to replace existing equipment must be new equipment and not transferred from another activity.
4	The lumen output of project CFL are greater than or equal to that of the ICL exchanged and the eligible wattage of project CFL is lower than that of the ICLs. This is tested and confirmed according to relevant national or international standards.	This criteria ensures that <b>Para.2</b> of <b>AMS-II.J. Version04</b> is applied, i.e. the total lumen output of the CFL should be equal to or more than that of the ICL being replaced; lumen output of ICL & CFL shall be determined in accordance with relevant national or international standard/s.
5	The aggregate electricity savings by a single SSC-CPA do not exceed the equivalent of 60 GWh per year.	This criteria ensures that <b>Para.3</b> of <b>AMS-II.J. Version04</b> is applied, i.e. the aggregate electricity savings by a single project activity may not exceed the equivalent of 60 GWh per year.
6	The average life or the rated average life of the CFLs is determined in accordance with IEC 60969 or an equivalent national standard, which shall be longer than 6000 hours. If the average life value is not available <i>ex ante</i> , it shall be made available for verification before or at the same time that the results of the second <i>ex post</i> monitoring survey.	This criteria ensures that <b>Para.4</b> of <b>AMS-II.J. Version04</b> is applied, i.e. the average life or the rated average life <sup>1</sup> of the CFLs shall be known <i>ex ante</i> . IEC 60969 (Self Ballasted Lamps For General Lighting Services - Performance Requirements) or an equivalent national standard shall be used to determine the average life.

## VALIDATION REPORT

No.	Eligibility criteria	Bureau Veritas Certification's Assessment
7	CFLs utilized under the SSC-CPA are marked for clear unique identification for the PoA and the SSC-CPA.	This criteria ensures that <b>Para.5 of AMS-II.J. Version04</b> is applied, i.e. CFLs utilized under the project activity shall, in addition to the standard lamp specifications, be marked for clear unique identification for the project
8	Commitment towards destruction of the ICLs generated out of SSC-CPA project. The total amount of CFLs distributed for each household is no more than six.	This criteria is based on <b>Para.7 of AMS-II.J. Version04</b> is applied, i.e. the project activity shall be designed to limit undesired secondary market effects (e.g., leakage) and free riders by ensuring that replaced lamps are exchanged and destroyed and project participants are required to undertake at least one of the following actions: (i) Directly installing the CFLs; (ii) Charging at least a minimal price for efficient lighting equipment; (iii) Restricting the number of lamps per household distributed through the project activity to six.
9	Actions are defined in the SSC-CPA-DD to be taken to encourage CFLs being installed in locations within the residences where the utilization hours are relatively high, for example common areas. For CFLs not directly installed these actions can include educating the CFL recipients of the best uses for CFLs.	This criteria ensures that <b>Para.8 of AMS-II.J. Version04</b> is applied, i.e. whether the CFLs are directly installed or not directly installed, the project design document shall define actions to be taken to encourage CFLs being installed in locations within the residences where the utilization hours are relatively high, for example common areas. For CFLs not directly installed these actions can include educating the CFL recipients of the best uses for CFLs.
10	The proposed method of distribution of efficient lighting equipment and how ICL collection (e.g., exchanged for project CFLs) and destruction should be indicated in the CPA DD and the CFL manufacturer and project households will sign agreements with Zhenjiang	This criteria ensures that <b>Para.6 of AMS-II.J. Version04</b> is applied, i.e. the project design document shall explain the proposed method of distribution of efficient lighting equipment and how ICL collection (e.g., exchanged for project CFLs) and destruction will be conducted and documented. The Project

## VALIDATION REPORT

No.	Eligibility criteria	Bureau Veritas Certification's Assessment
	Qiangling Energy-saving Light Source Co., Ltd. to relinquish their rights over the CERs generated from the project CFL use.	design document shall also explain how the proposed procedures eliminate double counting of Emission Reductions, for example due to CFL manufacturers, wholesale providers or others possibly claiming credit for Emission Reductions for the project CFLs.
11	Confirmation that this SSC-CPA is not registered or being registered, as a stand-alone CDM or as a CPA of another PoA.	This criteria ensures the avoidance of the double counting. It is consistent with <b>Para.7(h) of EB55 Annex38</b> , i.e. confirmation that the CPA is neither registered as a CDM project activity nor included in another registered PoA.
12	Confirmation that SSC-CPA is not a de-bundled component of another large-scale CPA or CDM project activity as per the latest guidance given in CDM EB.	This criteria ensures that each SSC-CPA is not a de-bundled component. It is consistent with <b>EB33 Annex43</b> (Small-Scale Programme of Activities Design Document Form).
13	The NPV of the SSC-CPA without the CDM revenue is negative compared to the alternative that the CPA is not implemented.	This criteria ensures that the CPA will face investment barrier without CDM and have additionality. It is based on Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities and Guidelines on the Assessment of Investment Analysis version 0.5 (EB62, Annex05)
14	The start date of the SSC-CPA is not, or will not be, prior to the commencement of validation of the programme of activities. The start date of the SSC-CPA shall be checked through documentary evidence.	This criteria ensures the prior consideration of each CPA. It is consistent with <b>Para.7(d) of EB55 Annex 38</b> , i.e. confirmation that the start date of any CPA is not, or will not be, prior to the commencement of validation of the programme of activities, i.e. the date on which the CDM-POA-DD is first published for global stakeholder consultation
15	The crediting period of SSC-CPA should be within the 28 years of the crediting period of PoA	This criteria ensures the validity of the crediting period of each CPA. It is consistent with <b>Para.7(c) of EB55 Annex38</b> , i.e. Starting date, type (fixed or renewable) and duration



## VALIDATION REPORT

No.	Eligibility criteria	Bureau Veritas Certification's Assessment
		of the crediting period of the CPA taking into account that the starting date of a crediting period of the CPA shall be the date of its inclusion in the registered PoA or any date thereafter and that the duration of the crediting period shall not exceed the end date of the PoA.
16	Stakeholders consultation is conducted prior to the start date of SSC-CPA.	This criteria ensures that all relevant stakeholders have been consulted prior to CPA inclusion. It is consistent with <b>Para.129</b> of <b>VVM Version01.2</b> , i.e. comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity, have been invited.
17	Confirmation that no funding from Annex I parties; if any, does not result in a diversion of official development assistance	The criteria ensures the relevant information of the ODA. It is consistent with <b>Para.13(l)</b> of <b>EB63 Annex 3</b> .
18	Sampling plan should be described in each CPA and consistent with the latest standard or guideline for sampling survey	The criteria ensures that sampling plan is included in each CPA and consistent with the latest standard or guideline for sampling survey. It is consistent with <b>Para.13(i)</b> of <b>EB63 Annex 3</b> .
19	Target group should be the households using ICLs for lighting, when carrying on the SSC-CPA of this PoA	The criteria defines the target group of CPA to be included in the PoA. It is consistent with <b>Para.13(h)</b> of <b>EB63</b>

Complying with **Para.167/VVM**, Bureau Veritas Certification hereby confirms that the specified eligibility criteria in the PoA-DD are sufficient to ensure that all CPAs would comply with the CDM requirement applicable to the PoA, which includes the means of demonstrating the additionality of the CPA and the applicability of the applied methodology.

Complying with **EB63 Annex 3/15/**, Bureau Veritas Certification hereby confirms that the eligibility criteria can cover the requirements for the development of eligibility.

### 3.7. Baseline and monitoring methodology

#### 3.7.1. Baseline and monitoring methodology

The specific CPA uses the approved simplified baseline and monitoring methodology AMS-II.J Version04– “Demand-side activities for efficient lighting technologies” dated 28/05/2010./9/




---

 VALIDATION REPORT
 

---

It is consistent with **No.1 of the eligibility criteria.**

The applicability assessment was carried out for applicability conditions of the methodology AMS-II.J. Version 04/9/ and the relevant eligibility criteria defined in the PoA-DD via an on-site visit, interviews with the PP and the local stakeholders.

- The CPA will lead to efficient use of electricity through the adoption of new CFLs to replace existing ICLs for households, which complies with the applicability of **Para.1 of AMS II.J. version 04. and No.3 of the eligibility criteria.**
- By checking test reports of Eco Design Requirements for Non-Directional Household lamps issued by Aurora International Testing Laboratory dated 25/04/2011/Ref-7/ and 05/05/2011/Ref-8/, Bureau Veritas Certification can confirm that CFLs to be installed have been independently tested by a qualified third party/Ref-9/ and that the lumen output of the CFLs is determined in accordance with the international standard IEC60969/Ref-10/. Lumen output of the CFLs is less than that of the replaced ICLs, which complies with the applicability of **Para.2 of AMS II.J. version 04. and No.4 of the eligibility criteria.**
- Bureau Veritas Certification has checked the ER calculation spreadsheet of the specific CPA/Ref-22/ and confirms that the expected aggregate electricity savings by the CPA will not exceed equivalent of 60 GWh every year, which complies with the applicability **Para.3 of AMS II.J. version 04. and No.5 of the eligibility criteria.**
- The average life of the CFLs is 10,000 hours, which has been known ex ante based on international standard IEC60969/Ref-10/ according to test reports of Eco Design Requirements for Non-Directional Household Lamps issued by Aurora International Testing Laboratory dated 25/04/2011/Ref-7/ and 05/05/2011/Ref-8/. It complies with the applicability **Para.4 of AMS II.J. version 04. and No.6 of the eligibility criteria.**
- Special label will be marked on the CFLs utilized under the CPA for clear unique identification, which complies with the applicability of **Para.5 of AMS II.J. version 04. and No.7 of the eligibility criteria.**
- The replaced ICLs will be collected and stored in appropriate boxes indicating the wattages of the replaced ICLs. Each box will state the number of ICLs stored in that box. The boxes will be stored at dedicated storage facilities. The CPA Implementer will arrange for destruction, which will be documented via witnessing by local environmental officials or time stamped video records. By checking the signed agreement with the manufacturer/Ref-11/ and based on the agreement to be signed with the residents, Bureau Veritas Certification confirms that the emission reductions will be only employed by the PP, for the manufacturer and the residents will give up claiming credit for emissions for the CFLs. It complies with the applicability of **Para.6 of AMS II.J. version 04. and No.10 of the eligibility criteria.**
- The replaced ICLs will be fully destroyed, thus the CPA will limit undesired secondary





## VALIDATION REPORT

market effects. The PP will undertake the actions of restricting the number of lamps per household to six, which complies with the applicability **Para.7 of AMS II.J. version 04.** and **No.8 of the eligibility criteria.**

- The CFLs will be installed in the locations of living rooms, bed rooms and kitchens, where the utilization hours are relatively high, which is the common practice in the project area and has been confirmed by Bureau Veritas Certification according to the on-site observation and interview with the PP and the stakeholders. For CFLs not directly installed by the implementer, the action of educating the CFL recipients of best use for CFLs will be conducted. It is consistent with **Para.8 of AMS II.J. version 04.** and **No.9 of the eligibility criteria.**

Bureau Veritas Certification hereby confirms that the selected base line and monitoring methodology is previously approved by the CDM Executive Board, and is applicable to the CPA, which, complies with all the applicability conditions therein.

Based on the on-site assessment, Bureau Veritas Certification hereby confirms that, as a result of the implementation of the CPA, there are no greenhouse gas emissions occurring within the project boundary, which are expected to contribute more than 1% of the overall expected average annual emissions reductions, which are not addressed by the applied methodology.

### 3.7.2. Project boundary

Bureau Veritas Certification has validated the project boundary of the specific CPA by:

- a) Assessing the relevant documents
- b) Observing the physical site

The spatial extent of the project boundary is clearly defined in line with AMS-II.J. Version 04 as the physical, geographical location of each project CFL installed and all power plants physically connected to the ECPG to which each CFL of the CPA is connected to.

The geographical boundary of the specific CPA is Chuzhou District, Jiangsu Province, P.R.China, within the defined geographical boundary of PoA, i.e. Jiangsu Province(except Lianshui County), P.R. China. It is consistent with **No.2 of the eligibility criteria.**

- ☞ Complying with **Para.80/VVM**, Bureau Veritas Certification hereby confirms that the identification of project boundary and the selected sources and gases are in line with the methodology AMS.II.J. version04 and the delineation of grid boundary as provided in the “Notification on Determining Baseline Emission Factor of China’s Grid” published by China’s DNA on 20/12/2010 (hereinafter referred to as “Notification of China-Grid EF”)/Ref-12/. During on-site **visit, via** observations of the physical site, Bureau Veritas Certification hereby confirms that the identified boundary and the selected sources and gases are justified for the project.

### 3.7.3. Baseline identification (87-88)




---

 VALIDATION REPORT
 

---

The CPA is the adoption of self-ballasted CFLs to replace ICLs in residential applications thus saving electricity consumption generated by ECPG, hence, according to methodology AMS-II.J. Version04, the baseline scenario is determined at PoA level properly as:

The proposed project would not be invested by the project proponent and the incandescent lamps (ICLs) of households in Chuzhou District, Jiangsu Province would be used and purchased as a continuation of current practice

Bureau Veritas Certification is able to conclude that the identified baseline scenario is suitable for the specific CPA based on the below two facts:

There are no mandatory requirements in Jiangsu Province and in China requiring the use of energy efficient CFL at the household level./Ref-13//Ref-14/

According to the baseline sampling survey/Ref-15/ conducted by the coordinating/managing entity and verified by Bureau Veritas Certification, the low efficiency baseline incandescent lamps were widely used in the project area of Chuzhou District, Huaian City, Jiangsu Province, P.R. China, which is also demonstrated by Bureau Veritas Certification's on-site observation. It is consistent with **No.15 of the eligibility criteria**.

☞ Complying with **Para. 87 and 88/VVM**, Bureau Veritas Certification hereby confirms that:

- (a) All the assumptions and data used by the project participants are listed in the design documents, including their references and sources;
- (b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the design documents;
- (c) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;
- (d) Relevant national and/or sector policies and circumstances are considered and listed in the design documents;
- (e) The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.

### 3.7.4. Algorithms and/or formulae used to determine emission reductions (92-93)

The steps taken to assess the requirement outlined in Para. 89 the VVM are described below:

The emission reductions generated by the Project were calculated in accordance with the baseline methodology AMS.II.J. version 04/9/ and the "Tool-Grid EF" version 02.2.0./7/

According to the baseline methodology AMS.II.J. version 04/9/, Emission reduction is net electricity savings(NES) times the emission factor calculated in accordance with provisions under AMS.I.D.

## VALIDATION REPORT

$$ER_y = NES_y * EF_{CO2,ELEC,y}$$

The electricity saved by the project activity in year y is calculated as follows:

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

Where:

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

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

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

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

Bureau Veritas Certification has reviewed the equations and parameters in the Emission reductions(ER) calculation spreadsheet against those in AMS.II.J. version 04 and found that they are fully consistent with each other. Bureau Veritas Certification has verified the values of the parameters used for ER calculation as below:

✓ Emission factor(EF)

According to the AMS.II.J. version 04 /10/, the emission factor(EF) was calculated in accordance with provisions under AMS-I.D. which refers to the latest approved version of Tool to calculate the emission factor for an electricity system.

Bureau Veritas Certification confirms that the data used in the specific CPA-DD, sourced from the “Notification of China-Grid EF”/Ref-12/ published by China’s DNA on 20/12/2010, was valid at the time of the validation.

The calculation was carried out as per Tool to calculate the emission factor for an electricity system Version02.2.0/7/ with the employment of the following six steps:

Step 1.-Identify the relevant electricity systems.

ECPG is selected as the electric power system of the project as per “Notification of China-Grid EF” issued by China’s DNA at the time of commencing this validation. Central China Power Grid (CCPG) and Shanxi Yangcheng Grid (SYG) are the connected electricity system since there is net electricity import from CCPG and SYG to ECPG. Option C, the simple operating margin emission factor is chosen to calculate the emission factors for net electricity imports from CCPG and SYG.

✎ Bureau Veritas Certification was able to confirm that the identified electricity systems of the CPA is consistent with “Notification of China-Grid EF”. The geographical extent of the

## VALIDATION REPORT

project activity system has been documented transparently and all grid power plants connected to the system have been identified.

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

Option I “only grid power plants are included in the calculation” provided in “*Tool-Grid EF*” version 02 is chosen to calculate the operating margin and build margin emission factor.

**Step 3.-**Select an operating margin (OM) method.

For the calculation of the OM emission factor, the simple OM emission factor calculation method was chosen because low cost/ must-run projects constitute less than 50% of the total grid generation during the last 5 years.

✎ Only grid power plants are included in the calculation. Bureau Veritas Certification has checked the calculation for low cost/must-run constitution of the total grid generation and confirmed the calculation is correct. Therefore, simple OM emission factor calculation method was selected reasonable. A 3-year generation-weighted average, based on the most recent data from China Electric Power Yearbook 2007-2009, which are the data available at the time of submission of the CDM-PDD to the Bureau Veritas Certification for validation, has been applied and calculated correctly.

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

Option B, Based on data on the total net electricity generation of all power plants serving the system and the fuel types and total fuel consumption of the project electricity system, is used to calculate simple OM emission factor. The data on electricity generation and auxiliary electricity consumption are obtained from the China Electric Power Yearbook from 2007 to 2009 (published annually). The data on different fuel consumptions for power generation and the net caloric values of the fuels are obtained from the China Energy Statistical Yearbook from 2007 to 2009. The emission factors of the fuels adopted were obtained from Table 1-2 and Table 1-4 of the “2006 IPCC Guidelines for National Greenhouse Gas Inventories: Workbook”.

The fixed crediting period is adopted for the Project and the OM will be fixed for the crediting period.

✎ The data source are deemed reasonable and Bureau Veritas Certification confirms that the calculation can be replicated using the data and parameter provided in the DDs.

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

The BM emission factor of the power grid is calculated by multiplying the emission factor of the thermal power with the share of the thermal power in the most recently added approach to 20% of total installed capacity. The emission factor for thermal power is determined based on the most advanced and commercially available technology endorsed by China’s DNA.

## VALIDATION REPORT

☞ Bureau Veritas Certification hereby confirms that the data sources are deemed reliable and calculation is appropriate.

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

According to the "Tool-Grid EF", the default weights  $\omega_{OM} = 0.5$  for Operating Margin and  $\omega_{BM} = 0.5$  for build Margin in the first crediting period of the Project are adopted.

With reference to the Tool-Grid EF, the Simple OM emission factor ( $EF_{grid,OM,y}$ ) of ECPG is calculated as 0.85924tCO<sub>2</sub>e/MWh. Similarly, the build margin emission factor ( $EF_{grid,BM,y}$ ) of the ECPG is calculated as 0.6789tCO<sub>2</sub>e/MWh.

Therefore, the combined baseline emission factor is determined ex-ante and will remain fixed during the first crediting period, viz.

$$EF_{grid,CM,y} = 0.85924\text{tCO}_2\text{e/MWh} \times 0.75 + 0.6789 \times 0.25 = 0.76907\text{tCO}_2\text{e/MWh}$$

✓ NTG, TD<sub>y</sub>, O<sub>i</sub>

The parameters of NTG, TD<sub>y</sub>, O<sub>i</sub>, determined ex-ante, are default values as per AMS.II.J. version 04./10/

✓ P<sub>1,PJ</sub>, P<sub>2,PJ</sub>, P<sub>3,PJ</sub>

The rated power of each type of CFL(P<sub>1,PJ</sub>, P<sub>2,PJ</sub>, P<sub>3,PJ</sub>), determined ex-ante, are based on the test reports/Ref-7//Ref-8/ of Eco Design Requirements for Non-Directional Household lamps issued by Aurora International Testing Laboratory. P<sub>1,PJ</sub>=P<sub>2,PJ</sub>=12W, P<sub>3,PJ</sub>=22W.

✓ P<sub>1,BL</sub>, P<sub>2,BL</sub>, P<sub>3,BL</sub>

According to the base line sampling survey/Ref-15/, the ICLs used in the bedrooms, living rooms and kitchens have the rated power of 40W, 60W, or 100W, which was demonstrated by Bureau Veritas Certification's on-site observation. Thus the rated power of each type of ICL(P<sub>1,BL</sub>, P<sub>2,BL</sub>, P<sub>3,BL</sub>) are appropriately.

✓ Q<sub>PJ,1</sub>, Q<sub>PJ,2</sub>, Q<sub>PJ,3</sub>

The number of each type of CFL(Q<sub>PJ,1</sub>, Q<sub>PJ,2</sub>, Q<sub>PJ,3</sub>), estimated in the CPA-DD, will be monitored ex -post. The number of Q<sub>PJ,1</sub>, Q<sub>PJ,2</sub>, Q<sub>PJ,3</sub> was estimated based on Statistical Yearbook 2009 of Chuzhou District/Ref-13/ and the baseline sampling survey/Ref-15/, which have been provided and verified by Bureau Veritas Certification.

✓ L<sub>i</sub>, X<sub>i</sub>, R<sub>i</sub>

The parameters of L<sub>i</sub>, X<sub>i</sub>, R<sub>i</sub> were used to calculate the lamp failure rate (LFR<sub>y</sub>), which will be monitored ex -post. The average life for CFLs determined based on the test reports/Ref-7//Ref-8/ of Eco Design Requirements for Non-Directional Household lamps issued by Aurora International Testing Laboratory. The parameter R<sub>i</sub> was default value as per the AMS.II.J. version 04. The number of operating hours per year is the average daily operating hours times 365 days.

## VALIDATION REPORT

By checking the emission reduction calculation spreadsheet of the specific CPA/Ref-19/, Bureau Veritas Certification can conclude that for the data and parameters not to be monitored throughout the crediting period (i.e. they are determined only once and thus remain fixed throughout the crediting period), it is assessed that all data sources, assumptions and calculations are correct, applicable to the project and contribute to a conservative estimate of the emission reductions and that for the data and parameters subject to monitoring it is confirmed that the emission reduction estimates provided in the CPA-DD are reasonable and conservative.

According to the estimated net electricity saved in each year of the crediting period, the estimated emission reductions of the Project in each year during the crediting period represents a reasonable estimation using the assumptions given by the CPA. The estimated net electricity saved and estimated emission reductions of the CPA in each year during the crediting period are shown as the Table 4 below.

**Table 4 the estimated emission reductions**

Year	Estimated net electricity saved (MWh)	Estimated emission reductions (tCO <sub>2</sub> )
1 <sup>st</sup>	50,779	39,052
2 <sup>nd</sup>	47,314	36,387
3 <sup>rd</sup>	43,849	33,723
4 <sup>th</sup>	40,385	31,058
5 <sup>th</sup>	36,920	28,393
6 <sup>th</sup>	33,455	25,729
7 <sup>th</sup>	29,990	23,064
8 <sup>th</sup> <sup>4</sup>	22,442	17,259
Total	305,134	234,665
Average	38,970	29,970

☺ Complying with **Para.92 and 93/VVM**, Bureau Veritas Certification hereby confirms that:

- (a) All assumptions and data used by the project participants are listed in the design documents, including their references and sources;
- (b) All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the design documents;
- (c) All values used in the design documents are considered reasonable in the context of the proposed CDM project activity;
- (d) The baseline methodology AMS-II.J. Version04 and “Tool-Grid EF” has been applied correctly to calculate emission reductions;

<sup>4</sup> The crediting period of 8<sup>th</sup> year only covers 302 days.



## VALIDATION REPORT

- (e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the design documents.

### 3.8. Additionality of PoA & CPA(97)

The steps taken and sources of information used to cross-check the information contained in the PDD on this matter are described below:

Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities/10/, Non-binding best practice examples to demonstrate additionality for SDC project activities/11/, Guidance on the assessment of investment analysis (version 05)/8/ have been employed for demonstrating and assessing the additionality of the CPA. The additionality of the CPA has been carefully checked, in doing so Bureau Veritas Certification has put the main focus on the following issues:

#### 3.8.1. Prior consideration of CDM

Via reviewing all the information and documents and crosschecking with on-site observation, Bureau Veritas Certification is able to confirm that the start date of the specific CPA, is 01/03/2011, the date of purchase agreement of the CFLs signed with the manufacturer. It is the earliest date when the implementation or construction or real action of the Project began. It is in accordance with Glossary of CDM terms version 05./12/

Based on the financial analysis conducted by the Coordinating/managing Entity itself on 06/12/2010, the Coordinating/managing Entity made the investment decision of the PoA at the same day. /Ref-17/ The start date of the CPA is later than 19/01/2011, the date of publication of the CDM-PoA-DD for global stakeholder consultation. It is consistent with **Para.7(d)** of **EB55 Annex38** and **No.14** of the eligibility criteria.

#### 3.8.2. Investment barrier

Considering the base line scenario identified above, Option II (Investment comparison analysis) was applied to demonstrate the investment barrier and NPV was identified as the financial indicator. which is in accordance with "Guidelines on the Assessment of Investment Analysis" version 04./8/

Before reviewing the NPV calculation/Ref-18/, Bureau Veritas Certification firstly validated the input parameters listed in the DDs in accordance with **VVM Para. 110**.

Bureau Veritas Certification has checked the input parameters (CFL unit price, CFL unit charge) against the financial analysis conducted by the Coordinating/managing Entity/Ref-17/ and found they are fully consistent.

The unit price of CFL used for NPV calculation was no less than 11RMB estimated by the coordinating/management entity, which is available at the time of investment decision. It was demonstrated by the CFLs purchase agreement signed with the manufacturer and Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd. dated 01/03/2011/Ref-11/. It is




---

 VALIDATION REPORT
 

---

observed that the CFL market price was over 20RMB in the local supermarket during the on-site visit/Ref-24/. The unit price of 11RMB used for NPV calculation was much lower than the market price. Therefore, Bureau Veritas Certification can conclude that the unit price of the CFL used for NPV calculation is conservative and reasonable.

As the distribution of each CFL will be charged for no more than 1 RMB determined by Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd at the time of investment decision/Ref-17/, after reviewing the NPV calculation/Ref-18/, Bureau Veritas Certification has found that the most conservative discount rate of 0% is used for NPV calculation and the calculation is correct and in accordance with the "Guidance on the assessment of investment analysis" version 05 (EB62 Annex05)/8/. As it showed, without CDM revenue, the CPA has negative NPV of -10.080.2. It is consistent with No.13 of the eligibility criteria. As the baseline scenario is identified as "the Project would not be invested by the P", the NPV of the baseline scenario is zero. Compared to the zero<sup>5</sup> NPV of the baseline scenario, the CPA is clearly financially unattractive without CDM.

Considering the CERs sales revenues based on the market price, the CPA can get plus NPV. Compared to zero NPV of the baseline scenario, the CPA becomes financially attractive with the CDM revenue.

☞ Complying with **para.114/VVM**, based on the assessment result by the financial expert engaged, Bureau Veritas Certification hereby confirms that the underlying assumptions are appropriate and the financial calculations are correct.

### 3.9. Monitoring plan (124)

Bureau Veritas Certification hereby confirms that the monitoring plan complies with the requirements of the methodology.

The steps taken to assess whether the monitoring arrangements described in the monitoring plan are feasible within the project design are described below.

The CPA uses the approved simplified monitoring methodology AMS-II.J. Version04/9/ for demand-side activities for efficient lighting technologies.

Applicability of this methodology is justified in the DDs as the PoA & CPA involve the activities that lead to efficient use of electricity through the adoption of self-ballasted compact fluorescent lamps (CFLs) to replace incandescent lamps (ICLs) in residential applications. Refer to the discussions on the applicability of the methodology at Section 3.8.1 above. Bureau Veritas Certification hereby confirms that the monitoring plan complies with the requirements of the methodology.

---

<sup>5</sup> The baseline scenario is a continuation of current practice and the project will not be invested. Thus the NPV of the baseline scenario is zero.



---

 VALIDATION REPORT
 

---

The combined margin emission factor is determined ex-ante based on the most recent information available. Accordingly, the data to be monitored in the monitoring plan are the number and power of each type of CFLs distributed under the Project ( $Q_{PJ,i}$ ,  $P_{i,PJ}$ ), the number and rated power of each type of the replaced ICLs ( $Q_{BL,i}$  and  $P_{i,BL}$ ), the start date and end date of installation of the CFLs ( $Date_{start}$  and  $Date_{end}$ ), Lamp Failure Rate for CFL type  $i$  in year  $y$  ( $LFR_{i,y}$ ).

First ex post monitoring survey for  $LFR_{i,y}$  will be carried out within the first year after installation of CFLs and subsequent ex post monitoring survey for  $LFR_{i,y}$  will be carried out once every 3 years. Only CFLs marked with "PCDM", "CFL Distribution Programme in Jiangsu Province" and SSC-CPA region name, which are installed and operating identified in the survey process can be counted to determine the  $Q_{PJ,i}$ . It is consistent with Para.17 of AMS II.J. Version04.

The survey principles are fully consistent with **Para.20 of AMS II.J. Version04**, i.e.

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

Parameter value to be monitored shall be estimated by sampling in accordance with the requirements in the applied methodology (applying 90/10 confidence/precision for the sample size calculation) separately and independently for each of the CPAs included in this PoA except when a single sampling plan covering a group of CPAs is undertaken applying 95/10 confidence/precision for the sample size calculation. It is consistent with Para.19 of EB65 Annex 02./13/

Bureau Veritas Certification has reproduced the sample size calculation and confirms that the sample size was correctly defined. Bureau Veritas Certification has also validated the sampling plan and is able to conclude that the proposed sample size and sampling method is adequate to achieve the minimum confidence/precision requirements. The sampling plan has also ensured that samples are randomly selected and are representative of the population. Thus Bureau Veritas Certification can conclude that the sampling plan will provide parameter value estimates in an unbiased and reliable manner. It is consistent with Para. 20 of EB65 Annex 02./13/

The CPA is the replacement of the existing less efficient incandescent lamps (ICLs) with higher efficient compact fluorescent lamps (CFLs). The Net Electricity Savings shall be modified for changes to the Lamp Failure Rate as may be indicated by *ex post* monitoring survey results and/or on the basis of CFL Average Life values if a CFL Rated Average Life was used initially as per AMS.II.J. version 04. The emission reduction is net electricity




---

 VALIDATION REPORT
 

---

savings(NES) times the emission factor according to the base line methodology AMS.II.J. version 04.

Operational management for the Project is comprehensively detailed in the design documents and the description of organization, responsibility, training, recording, maintenance needs and sampling plan are clearly mentioned. Achievement of the records was indicated and Bureau Veritas Certification believes that the retrievability of relevant records is pro-actively considered.

The start date and end date of installation of the CFLs( $Date_{start}$  and  $Date_{end}$ ) will be recorded by the distribution team. The number and rated power of each type of the replaced ICLs( $Q_{BL,i}$  and  $P_{i,BL}$ ) will be recorded and counted by the distribution team. The number of each type of CFLs distributed under the Project( $Q_{PJ,i}$ ) and Lamp Failure Rate for CFL type  $i$  in year  $y$ ( $LFR_{i,y}$ ) will be monitored through ex-post monitoring survey. The sampling plan of the ex-post monitoring survey has also been provided to determine the number of each type of CFLs distributed under the Project( $Q_{PJ,i}$ ) and Lamp Failure Rate for CFL type  $i$  in year  $y$ ( $LFR_{i,y}$ ). The sampling plan is in accordance with the AMS II.J. version 04 and Standard for sampling and surveys for CDM project activities and programme of activities(EB65 Annex 02)/13/.

☞ Complying with **Para.124/VVM**, Bureau Veritas Certification hereby confirms that the monitoring arrangements described in the monitoring plan are feasible within the project design and the project participants are able to implement the monitoring plan.

### 3.10. Local stakeholder consultation (130)

Local stakeholder consultation is done at SSC-CPA level.

A stakeholder consultation meeting was carried out on 18/11/2010/Ref-26/ and a survey was made among the local stakeholders in Chuzhou District from 18/11/2010 to 30/11/2010/Ref-19/, which is prior to the start date of the CPA(01/03/2011). It is consistent with No.17 of the eligibility criteria.

Totally 50 copies of questionnaires/Ref-19/ were distributed and all of them had been returned with 100% return rate. The collected questionnaires/Ref-19/ with responses from stakeholders are maintained by the coordinating/management entity and were presented to Bureau Veritas Certification for assessment during the site visit of the validation activity.

The stakeholders have recognized the contribution of the CPA to decrease of electricity fee, improvement of living environment and were all supportive to the CPA. Their views were endorsed by the local stakeholders interviewed during the site visit of the validation activity.

During the on-site visit, Bureau Veritas Certification has conducted an interview with local stakeholders and confirms that the stakeholders affected had been invited in a transparent manner. The interview with stakeholders and review of returned questionnaires shows that the summary of the comments received has been completely provided in the CPA-DD and due account of the comments has been described in the CPA-DD. Bureau Veritas Certification

## VALIDATION REPORT

hereby confirms that the process of local stakeholder consultation is observed to be adequate.

☞ Complying with **Para.130VVM**, Bureau Veritas Certification hereby confirms that the local stakeholder consultation was performed and the process of local stakeholder consultation is observed to be adequate. The Project will be beneficial to the local sustainable development without negative effect on the local stakeholders.

### 3.11. Environmental Impacts (133)

Environmental Analysis is done at PoA level.

By reviewing “List of projects or activities requiring prior environmental clearance” in the “Environmental Protection Management of infrastructure projects”/Ref-20/ issued by Environment Protection Leading Group of the State Council and local expertise, Bureau Veritas Certification is able to conclude that no documentation of the environmental impacts of the project activities is required in P.R.China.

The environmental impact caused by the PoA has been identified and analyzed in the PoA-DD. There may be mercury contamination of soils and groundwater resources. All above impacts would be within an acceptable limit by implementing corresponding mitigation measures, which has been confirmed by Bureau Veritas Certification's sector expertise.

No environmental impact as the exchanged ICLs are properly collected and destroyed.

Complying with **Para.133/VVM**, Bureau Veritas Certification hereby confirms that an analysis of environmental impacts has been conducted and there will be not have any significant impacts on the environment by means of measures of pollution avoidance.

### 3.12. Compliance of the Specific CPA and the eligibility criteria(168)

Bureau Veritas Certification has assessed the compliance of the specific CPA and the eligibility criteria as below Table 5.

Table 5 Compliance of the specific CPA and the eligibility criteria

No.	Eligibility criteria	Bureau Veritas Certification's Assessment
1	The baseline and monitoring methodology AMS-II.J is applied.	The CPA complies with this criteria. Please refer to Section 3.8.1 for details.
2	The geographical boundary of the SSC-CPA area is uniquely defined and located in Jiangsu	The CPA complies with this criteria. Please refer to Section

## VALIDATION REPORT

No.	Eligibility criteria	Bureau Veritas Certification's Assessment
	Province (exclude Lianshui County).	3.8.2 for details.
3	The base line technology is Incandescent Lamp being used by SSC-CPA residents. The CFLs distributed in the SSC-CPA are new equipments, and have ballasts integrated to the lamp as a non-removable part.	The CPA complies with this criteria. Please refer to Section 3.8.1 for details.
4	The lumen output of project CFL are greater than or equal to that of the ICL exchanged and the eligible wattage of project CFL is lower than that of the ICLs. This is tested and confirmed according to relevant national or international standards.	The CPA complies with this criteria. Please refer to Section 3.8.1 for details.
5	The aggregate electricity savings by a single SSC-CPA do not exceed the equivalent of 60 GWh per year.	The CPA complies with this criteria. Please refer to Section 3.8.1 for details.
6	The average life or the rated average life of the CFLs is determined in accordance with IEC 60969 or an equivalent national standard, which shall be longer than 6000 hours. If the average life value is not available <i>ex ante</i> , it shall be made available for verification before or at the same time that the results of the second <i>ex post</i> monitoring survey.	The CPA complies with this criteria. Please refer to Section 3.8.1 for details.
7	CFLs utilized under the SSC-CPA are marked for clear unique identification for the PoA and the SSC-CPA.	The CPA complies with this criteria. Please refer to Section 3.8.1 for details.
8	Commitment towards destruction of the ICLs generated out of SSC-CPA project. The total amount of CFLs distributed for each household is no more than six.	The CPA complies with this criteria. Please refer to Section 3.8.1 for details.
9	Actions are defined in the SSC-CPA-DD to be taken to encourage CFLs being installed in locations within the residences where the utilization hours are relatively high, for example	The CPA complies with this criteria. Please refer to Section 3.8.1 for details.

## VALIDATION REPORT

No.	Eligibility criteria	Bureau Veritas Certification's Assessment
	common areas. For CFLs not directly installed these actions can include educating the CFL recipients of the best uses for CFLs.	
10	The proposed method of distribution of efficient lighting equipment and how ICL collection (e.g., exchanged for project CFLs) and destruction should be indicated in the CPADD and the CFL manufacturer and project households will sign agreements with Zhenjiang Qiangling Energy-saving Light Source Co., Ltd. to relinquish their rights over the CERs generated from the project CFL use.	The CPA complies with this criteria. Please refer to Section 3.8.1 for details.
11	Confirmation that this SSC-CPA is not registered or being registered, as a stand-alone CDM or as a CPA of another PoA.	The CPA complies with this criteria. Bureau Veritas Certification has checked the UNFCCC website and China DNA's website and can confirm that this SSC-CPA is not registered or being registered, as a stand-alone CDM or as a CPA of another PoA.
12	Confirmation that SSC-CPA is not a de-bundled component of another large-scale CPA or CDM project activity as per the latest guidance given in CDM EB.	The CPA complies with this criteria. Each of the independent subsystems/measures(CFL) is obviously less than 1% of the small-scale thresholds(60GWh). Thus Bureau Veritas Certification can confirm that the SSC-CPA is not a de-bundled component of another large-scale CPA or CDM project activity as per EB54 Annex13.
13	The NPV of the SSC-CPA without the CDM revenue is negative compared to the alternative	The CPA complies with this criteria. Please refer to Section

## VALIDATION REPORT

No.	Eligibility criteria	Bureau Veritas Certification's Assessment
	that the CPA is not implemented.	3.9.2 for details.
14	The start date of the SSC-CPA is not, or will not be, prior to the commencement of validation of the programme of activities. The start date of the SSC-CPA shall be checked through documentary evidence.	The CPA complies with this criteria. Please refer to Section 3.9.1 for details.
15	The crediting period of SSC-CPA should be within the 28 years of the crediting period of PoA	The CPA complies with this criteria. The starting date of crediting period of this SSC-CPA is to be determined, which will not be prior to that of the PoA. This SSC-CPA has a fixed crediting period of 7 years and 302 days and will be within the PoA crediting period, according to its implementation plan.
16	Stakeholder consultation meeting is prior to the start date of SSC-CPA.	The CPA complies with this criteria. Please refer to Section 3.10 for details.
17	Confirmation that no funding from Annex I parties; if any, does not result in a diversion of official development assistance	There is no funding from Annex I parties in the CPA
18	Sampling plan should be described in each CPA and consistent with the latest standard or guideline for sampling survey	The sampling plan for the CPA is consistent with "Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities" (Version 02 EB65).
19	Target group should be the households using ICLs for lighting, when carrying on the SSC-CPA of this PoA	The target group of the CPA is the households using ICLs in Chuzhou County.

Complying with **Para.168/VVM**, Bureau Veritas Certification hereby concludes that the specific CPA complies with the eligibility criteria specified in the PoA-DD

#### 4. COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS



---

VALIDATION REPORT

---

- ☺ Complying with **Para.173/VVM**, the DDs using methodology AMS-II.J. was webhosted on the UNFCCC for global stakeholders' comments as per CDM requirements. The PoA was webhosted from 21/01/2011 to 19/02/2011.

No comments were received during this period.





## 5. VALIDATION OPINION

Bureau Veritas Certification has performed a validation of CFL Distribution Programme in Jiangsu Province. The validation was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The validation consisted of the following three phases: i) a desk review of the project design and the baseline and monitoring plan; ii) follow-up on-site visit and interviews with project stakeholders; iii) the resolution of outstanding issues and the issuance of the final validation report and opinion.

Coordinating/managing Entity used the latest Validation and Verification Manual (version 01.2), Procedures for registration of a programme of activities as a single CDM project activity and issuance of certified emission reductions for a programme of activities (version 04.1), to demonstrate the additionality of the Project. In line with this tool, the PDD provides investment analysis to determine that the project activity itself is not the baseline scenario. The latest Tool to calculate the emission factor for an electricity system (version 02.2) is also applied to determine the emission factor of ECPG.

By synthetic description of the project, the CPA is likely to result in reductions of GHG emissions partially. An investment analysis demonstrates that the project activity is not a plausible baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the CPA is implemented and maintained as designed, the monitoring plan (including sampling plan) is consistent with AMS I.I.J. Version 04 and EB65 Annex 02 and the project is expected to achieve the total emission reductions of 234,665 tCO<sub>2</sub>e over the chosen fixed crediting period of 7 year and 302 days and average annual emission reductions of 29,970 tCO<sub>2</sub>e.

The review of the PoA DD (version 03), Specific CPA DD (version 03) and Generic CPA DD (version 03) and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the PoA correctly applies and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria and the Specific CPA is correctly included in the PoA. Bureau Veritas Certification thus requests registration of CFL Distribution Programme in Jiangsu Province as CDM programme of activities.





## 6. REFERENCES

### Category 1 Documents:

Documents provided by the Zhenjiang Qiangling Energy-saving Light Source Co., Ltd. that relate directly to the GHG components of the programme.

Ref-1	PoA-DD version 01 dated 10/01/2011, Specific-CPA-DD version 01 dated 10/01/2011, and Generic-CPA-DD available for public comments <a href="http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/SU4WR58PN82E99YM6HXV2MB22V5O3Q/view.html">http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/SU4WR58PN82E99YM6HXV2MB22V5O3Q/view.html</a>
Ref-2	PoA-DD version 03 dated 20/12/2011,
Ref-3	Specific-CPA-DD version 03.1 dated 28/03/2012
Ref-4	Generic-CPA-DD dated 28/03/2011
Ref-5	LoA from DNA of China
Ref-6	GB/T 17263:Self-ballasted lamps for general lighting service-Performance requirement
Ref-7	Test Reports of Eco Design Requirements for Non-Directional Household lamps for 12W CFL issued by Aurora International Testing Laboratory dated 25/04/2011
Ref-8	Test Reports of Eco Design Requirements for Non-Directional Household lamps for 22W CFL issued by Aurora International Testing Laboratory dated 04/05/2011
Ref-9	Qualification of the Aurora International Testing Laboratory <a href="http://www.aitesting.com/">http://www.aitesting.com/</a>
Ref-10	IEC 60969:2001 Self-Ballasted Lamps for General Lighting Services - Performance Requirements
Ref-11	CFLs purchase agreement signed with the manufacturer dated 01/03/2011
Ref-12	Announcement to Publish 2010 Baseline Emission Factors for Regional Power Grids in China (China's DNA) issued on 20/12/2010 <a href="http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File2552.pdf">http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File2552.pdf</a>
Ref-13	The Provisional Measures of Financial Subsidy for Promoting Efficient Lighting Equipment" was jointly published by NDRC and Ministry of Finance in 2007 <a href="http://www.sdpc.gov.cn/zjgx/t20080508_210093.htm">http://www.sdpc.gov.cn/zjgx/t20080508_210093.htm</a>

## VALIDATION REPORT

Ref-14	Evidence on the difficulty of efficient lighting efficient promotion in rural areas <a href="http://finance.sina.com.cn/chanjing/b/20061115/09551042841.shtml">http://finance.sina.com.cn/chanjing/b/20061115/09551042841.shtml</a> <a href="http://www.ledb2b.cn/lib/0909/101_09211.asp">http://www.ledb2b.cn/lib/0909/101_09211.asp</a>
Ref-15	Baseline sampling survey of the CPA
Ref-16	Statistical Yearbook 2009 of Chuzhou District
Ref-17	Board meeting minutes of the investment decision of the PoA and the investment analysis
Ref-18	NPV calculation spreadsheet of the specific CPA
Ref-19	Evidence of 50 questionnaires of the stakeholder survey
Ref-20	Environmental Protection Management of Infrastructure projects issued by Environment Protection Leading Group of the State Council <a href="http://law.baidu.com/pages/chinalawinfo/0/9/13c902cbea1bc497449891617cb40d590.html">http://law.baidu.com/pages/chinalawinfo/0/9/13c902cbea1bc497449891617cb40d590.html</a>
Ref-21	PoA financial Spreadsheet template
Ref-22	ER calculation spreadsheet of the specific CPA
Ref-23	MoC signed by Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd. and China's DNA dated 24/08/2011
Ref-24	Evidence of CFL price in local super market
Ref-25	NPV calculation template of the PoA
Ref-26	Evidence of the stakeholder consultation meeting

**Category 2 Documents:**

Background documents related to the design and/or methodologies employed in the design or other reference documents.

/1/	Validation and Verification Manual version 01.2 dated 30/07/2010(EB55 Annex 1)
/2/	Procedures for registration of a programme of activities as a single CDM project activity and issuance of certified emission reductions for a programme of activities version 04.1 dated 02/08/2010(EB55 Annex38)
/3/	Clarifications regarding the "Procedures for registration of a programme of activities as a single CDM project activity and issuance of certified emission reductions for a programme of activities" version01 dated 15/04/2011(EB60 Annex26)

## VALIDATION REPORT

/4/	Small-Scale Programme of Activities Design Document Form (EB33 Annex43)
/5/	Small-Scale Programme Activity Design Document Form(EB33 Annex44)
/6/	Guidelines on assessment of debundling for SSC project activities version03 dated 28/05/2010(EB54 Annex13)
/7/	Tool to calculate the emission factor for an electricity system version 02.2.0 dated 03/06/2011(EB61 Annex12)
/8/	Guidelines on the Assessment of Investment Analysis version 5(EB62, Annex05)
/9/	AMS-II.J. Demand-side activities for efficient lighting technologies version04(EB54 Annex6)
/10/	Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities
/11/	Non-binding best practice examples to demonstrate additionality for SSC project activities(EB35 Annex34)
/12/	Glossary of CDM terms version 05
/13/	Standard for sampling and surveys for CDM project activities and programme of activities(EB65 Annex 02)
/14/	Standard for demonstration of additionality of GHG emission reductions achieved by a programme of activities(EB63 Annex 02)
/15/	Standard for the development of eligibility criteria for the inclusion of a project activity as a CPA under the PoA(EB63 Annex 03)
/16/	Standard for application of multiple CDM methodologies for a programme of activities(EB63 Annex04)

**Persons and Stakeholders Interviewed:**

List persons interviewed during the validation or persons that contributed with other information that are not included in the documents listed above.

Mr.Sui Naiqing	General manager of Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd.
Mr.Ma Yongmin	Engineer of Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd.

## VALIDATION REPORT

Mr.Hua Xinxiang	CDM team member of Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd.
Mr.Wu Qian	CDM project manager of Zhenjiang Qiangling Energy-saving Light Source Co.,Ltd.
Mr.Wang Wenqiang	project manager of Sino Carbon Innovation & Investment Co.,Ltd
Ms.Shi Xiaochen	Consultant of Sino Carbon Innovation & Investment Co.,Ltd
Mr.Ji Fei	Villager of Liudamen Village, Jiaoling Town
Mr.Ji Zhaocheng	Villager of Liudamen Village, Jiaoling Town
Mr.Ji Shaicheng	Villager of Liudamen Village, Jiaoling Town
Mr.Ji Huaihai	Villager of Liudamen Village, Jiaoling Town
Mr.Ji Huaixing	Villager of Liudamen Village, Jiaoling Town
Mr.Ji Chengqun	Villager of Liudamen Village, Jiaoling Town
Mr.Ji Weicheng	Villager of Liudamen Village, Jiaoling Town
Mr.Hu Chengwen	Villager of Dahu Village, Jiaoling Town
Mr.Hu Xuefeng	Villager of Dahu Village, Jiaoling Town
Mr.Hu Yucheng	Villager of Dahu Village, Jiaoling Town
Mr.Hu Yuecheng	Villager of Dahu Village, Jiaoling Town
Mr.Hu Liangcheng	Villager of Dahu Village, Jiaoling Town
Mr.Zhou Deqing	Villager of Daiwan Village, Nanzha Town
Mr.Zhao GuangZhang	Villager of Daiwan Village, Nanzha Town
Mr.Jia Quan	Villager of Daiwan Village, Nanzha Town
Mr.Xue Jinfa	Villager of Daiwan Village, Nanzha Town
Mr.Zhang Aiwan	Villager of Daiwan Village, Nanzha Town
Mr.Yang Hongzhong	Villager of Huangpu Village, Nanzha Town
Mr.Yang Liben	Villager of Huangpu Village, Nanzha Town
Mr.Yang Hongkun	Villager of Huangpu Village, Nanzha Town
Mr.Yang Libao	Villager of Huangpu Village, Nanzha Town
Mr. Yang Zhengxing	Villager of Huangpu Village, Nanzha Town



## VALIDATION REPORT

Mr.He Zhen	Villager of Heguo Village, Fanji Town
Mr.He Bao	Villager of Heguo Village, Fanji Town
Mr.He Tian	Villager of Heguo Village, Fanji Town
Mr.He Qing	Villager of Heguo Village, Fanji Town
Mr.Yu Guangqing	Villager of Zhongqiao Village, Liujun Town
Mr.Qiu Zhou	Villager of Zhongqiao Village, Liujun Town
Mr.Wang Yongjun	Villager of Zhongqiao Village, Liujun Town
Mr. Wang Jinming	Villager of Zhongqiao Village, Liujun Town
Mr.Yu Baoquan	Villager of Zhongqiao Village, Liujun Town
Mr.Wang Jinbiao	Villager of Zhongqiao Village, Liujun Town
Mr.Jiang Yufa	Villager of Yanbai Village, Liujun Town
Mr.Zhao Kunxing	Villager of Yanbai Village, Liujun Town
Mr.Fan Yulong	Villager of Yanbai Village, Liujun Town
Mr.Zhao Huailong	Villager of Yanbai Village, Liujun Town
Mr.Fan Yuliang	Villager of Yanbai Village, Liujun Town

## 7. CURRICULA VITAE OF THE DOE'S VALIDATION TEAM MEMBERS

Mr.Tim Wang Wei	Bureau Veritas Certification, China	<p>Team Leader, Climate Change Lead Verifier</p> <p>He holds a Master Degree in Environmental Science. Before joining BV in Feb.2009, he gained 4 and a half years of working experience in engineering and EIA for manufacturing enterprise in P.R. China. He obtained the certificates of CDM Lead Verifier and ISO14001 Lead Auditor in Bureau Veritas and received training in ISO 14064.</p>
Mr. Zeng Ziyuan	Bureau Veritas Certification, China	<p>Team member, , Climate Change Lead Verifier</p> <p>He holds a Bachelor Degree in Building Environment and Equipment Engineering. Before joining BV in 2008, he gained 2 years of technical experiences in the green building industry in P.R China. He obtained the certificate of CDM Verifier and Lead Auditor for EMS ISO 14001. He completed the course assessment for the ISO 14064:2006.</p>
Mr.Robin Wang Jing	Bureau Veritas Certification, China	<p>Team member, , Climate Change Lead Verifier</p> <p>He holds a Bachelor Degree in Gas &amp; Heating Engineering. He was a Gas Engineer with over 10 years' experiences in oil and gas sector and building technology in P.R. China. Before joining BV in 2007, he gained two years of CDM audit experience in P.R China. He obtained the certificate of CDM Verifier and Lead Auditor for ISO 14001. He completed the course assessment for the ISO 14064:2006.</p>
Ms.Jasmine Tang Xue Mei	Bureau Veritas Certification, China	<p>Independent Technical Reviewer, Climate Change Lead Verifier.</p> <p>She holds a Master Degree in Environmental Engineering. Before joining BV in 2008, she gained two years of CDM technical working experience in P.R China. She obtained the certificate of CDM Lead Verifier, Lead Auditor for ISO 14001 and ISO 14064.</p>



## VALIDATION REPORT

Mr.H.B. Muralidhar	Bureau Veritas Certification, India Private Limited	Technical specialist , Climate Change Lead Verifier  BE (Electrical) graduate  Total o f 25 y ears of ex perience pow er generation and di stribution r elated fields as w ell as in management system auditing. He has been involved in validation of more than 50 CDM projects
--------------------	---	---

## VALIDATION REPORT

**APPENDIX A: COMPANY CDM PROJECT VALIDATION PROTOCOL****Table 1** VALIDATION REQUIREMENTS OF CDM-SSC-POA AND CDM-SSC-CPA

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
<b>1. Approval</b>			<b>COUNTRY A</b> <i>(P.R.China)</i>	<b>COUNTRY B</b> <i>(insert the country name)</i>		
1.1. Have the letters of approval obtained from each host Party and Annex I Party which wished to be involved in the PoA?	EB55 Ann38 VVM	9  45	<del>CAR-1</del> <del>LoA from China has not been provided.</del> CAR-1 was closed out after the LoA from China has been provided and verified.	No Annex I party involved.	<del>CAR-1</del>	OK
1.2. Are letters of approval be issued in accordance with the guidance provided by the Board (EB 16 report, Annex 6)? - The Party is a Party of the Kyoto Protocol - The participation is voluntary - In the case of the host Party, the proposed CDM programme contributes to the sustainable development of the country - Refers to the precise proposed CDM project activity title in the POA-DD being submitted for	EB55 Ann38  EB16 Ann6 VVM	9  1  45	<del>Pending on CAR-1</del> Yes. LoA from China is issued by China's DNA. China is a Party of the Kyoto Protocol. Qiangling C F L E nergy-Saving Li ght S ource Co.,Ltd. participates in the PoA voluntarily.	N.A.	<del>Pending</del>	OK





## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
registration			The P oA co ntributes t o China's sustainable develoment.		
1.3. Has the coordinating/managing entity obtained letters of authorization of its coordination of the PoA from each host Party?	EB55 Ann38	10	<del>Pending on CAR-1</del> Yes. According to the LoA from China's DNA, t he coordinating/managing entity obtained Letters of authorization o f i ts coordination o f the P oA from China.	<del>Pending</del>	OK
1.4. If, subsequent to the registration of the programme, the coordinaing/managing entity has changed, are below documents submitted? - New letter(s) of authorization by the each respective host Party stating the change in the coordinating/managing entity - A confirmation from new coordinating/managing entity that the PoA will be developed and implemented with the same set framework as originally described in the CDM-PoA-DD	EB55 Ann38	12	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
1.5. Is(are) the letter(s) of approval unconditional with respect to (b) above?	VVM	46	<del>Pending on CAR-1</del> No. It is unconditional in P. R. China.	N.A.	<del>Pending</del>	OK
1.6. Has(ve) the letter(s) of approval been issued by the respective Party's designated national authority (DNA) and is valid for the CDM project activity under validation?	VVM	47	<del>Pending on CAR-1</del> The Letter of approval has been issued by China's DNA.	N.A.	<del>Pending</del>	OK
1.7. Is there doubt with respect to the authenticity of the letter of approval?	VVM	48	<del>Pending on CAR-1</del> There is no doubt with respect to the authenticity of the LoA.	N.A.	<del>Pending</del>	OK
1.8. If yes, was verified with the DNA that the letter of approval is authentic?	VVM	48	<del>Pending on CAR-1</del> N.A.	N.A.	<del>Pending</del>	OK
<b>2. Participation</b>			<b>PP1 (Zhenjiang Qiangling Energy-saving Light Source Co., Ltd.)</b>	<b>PP2 (N.A.)</b>		
2.1. Are the operators of individual CPAs considered to be project participants?	EB55 Ann38	8	Yes.	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS		Draft Concl	Final Concl
2.2. Is CDM programme participation recorded at the PoA level?	EB55 Ann38	8	Yes.	N.A.	OK	OK
2.3. Has the approval of participation issued from the relevant DNA?	VVM	53	<del>Pending on CAR-1</del> Yes. The LoA of China has been issued from China's DNA.	N.A.	<del>Pending</del>	OK
2.4. Is there doubt with respect to (2.3) above?	VVM	53	<del>Pending on CAR-1</del> No.	N.A.	<del>Pending</del>	OK
2.5. If yes, was verified with the DNA that the approval of participation is valid for the proposed project participant?	VVM	53	<del>Pending on CAR-1</del> N.A.	N.A.	<del>Pending</del>	OK
2.6. Does the DOE have a contractual relationship with the project participants?	EB50 Ann48	7	Yes.	N.A.	OK	OK
2.7. Is the coordinating/managing entity either sole or joint focal point for each area of communication?	EB55 Ann38	11	Sole focal point.	N.A.	OK	OK
2.8. Are the joint focal points for the programme limited to be 5, or equal to the number of host Parties if greater than 5?	EB55 Ann38	11	<del>CAR-2</del> <del>MoC has not been provided.</del> CAR-2 was closed out after the MoC was provided and verified.		<del>CAR-2</del>	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
<b>3. CDM-SSC-PoA-DD</b>	<b>EB33</b>	<b>Ann 43</b>			
3.1. In CDM-SSC-PoA-DD section A.1 are the following provided? - Title of PoA - Current version number and date of document	EB33	Ann 43	CFL Distribution Programme in Jiangsu Province GSP Version: 01 date:10/01/2011 Final Version 03 date:20/12/2011	OK	OK
3.2. In CDM-SSC-PoA-DD section A.2 are following provided?	EB33	Ann 43			
3.2.1. General operating and implementing framework of PoA	EB33	Ann 43	Yes. High quality long-life CFLs would be distributed to residential households in exchange of an incandescent lamp (ICL). Zhenjiang Qiangling Energy-saving Light Source Co., Ltd. will co ordinate the Small-Scale Programme of Activities (SSC-PoA) and will support the project implementer(s) in implementing the CDM Programme Activities (CPAs) in Jiangsu Province in assistance with local governments.	OK	OK
3.2.2. Policy/measure or stated goal of the PoA	EB33	Ann 43	<del>CL-1</del> <del>Clarification is required on policy/measure or stated goal of the PoA.</del>	<del>CL-1</del>	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			CL-1 was closed out after stated goal of the PoA was clearly specified in Section A.2 of PoA-DD.		
3.2.3. Confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity	EB33	Ann 43	Yes. It has been confirmed that the PoA is a voluntary action by Zhenjiang Qiangling Energy-saving Light Source Co., Ltd.	OK	OK
3.3. In CDM-SSC-PoA-DD section A.3 are following information included?	EB33	Ann 43			
3.3.1. Coordinating or managing entity of the PoA as the entity which communicates with the Board	EB33	Ann 43	Yes. Zhenjiang Qiangling Energy-saving Light Source Co., Ltd. is Coordinating/Managing Entity.	OK	OK
3.3.2. Project participants being registered in relation to the PoA	EB33	Ann 43	Yes. Zhenjiang Qiangling Energy-saving Light Source Co., Ltd. will project participant being registered in relation to the PoA.	OK	OK
3.4. In CDM-SSC-PoA-DD section A.4.1 are following provided?	EB33	Ann 43			
3.4.1. Host Party(ies)	EB33	Ann 43	Yes. P.R. China is Host Party.	OK	OK
3.4.2. Definition of the boundary for the PoA in terms	EB33	Ann	Yes.	OK	OK

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
of a geographical area(e.g., municipality, region within a country, country or several countries) within which all small-scale CDM programme activities(SSC-CPAs) included in the PoA will be implemented, taking into consideration the requirement that all applicable national and/or sectoral policies and regulations of each host country within that chosen boundary.		43	The boundary of the PoA has been defined as Jiangsu Province (exclude Lianshui county), P.R.China, with the geographical coordinates of north latitude 30°45'-35°20' and east longitude 116°18'-121°57'.		
3.5. In CDM-SSC-PoA-DD section A.4.2, is the description of a typical small-scale CPA provided?	EB33	Ann 43			
3.5.1. Technology or measures to be employed by the SSC-CPA	EB33	Ann 43	<p><del>CL-2</del>  <del>Clarification is required on the detailed technology/measures to be employed by the SSC-CPA.</del></p> <p>CL-2 was closed out after the detailed technology/measures to be employed by the SSC-PPA have been included in Section A.4.2.1 of the PoA-DD and is consistent with the applied methodology.</p> <p>The SSC-CPA under the PoA is to distribute high efficient CFLs, replacing equal amount of ICLs being used by residents. CFL with average life longer than</p>	<del>CL-2</del>	OK

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			6000h has lower power and equal or higher lumen output than that of substituted ICL.		
3.5.2. Eligibility criteria for inclusion of a SSC-CPA in the PoA	EB33	Ann 43	<p>Yes.</p> <p>Eligibility criteria for inclusion of a SSC-CPA have been included in A.4.2 of the PoA-DD.</p> <p>1.The baseline and monitoring methodology AMS-II.J is applied.</p> <p>2.The geographical boundary of the SSC-CPA area is uniquely defined and located in Jiangsu Province (exclude Lianshui County).</p> <p>3. The baseline technology is Incandescent Lamp being used by SSC-CPA residents. The CFLs distributed in the SSC-CPA are new equipments, and have ballasts integrated to the lamp as a non-removable part.</p> <p>4.The lumen output of project CFL are greater than or equal to that of the ICL exchanged and the eligible wattage of project CFL is lower than that of the ICLs. This is tested and confirmed according to relevant national or international standards.</p> <p>5. The aggregate electricity savings by a single SSC-CPA do not exceed the equivalent of 60 GWh per year.</p>	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			<p>6. The average life or the rated average life of the CFLs is determined in accordance with IEC 60969 or an equivalent national standard, which shall be longer than 6000 hours. If the average life value is not available <i>ex ante</i>, it shall be made available for verification before or at the same time that the results of the second <i>ex post</i> monitoring survey.</p> <p>7. CFLs utilized under the SSC-CPA are marked for clear unique identification for the PoA and the SSC-CPA.</p> <p>8. Commitment towards destruction of the ICLs generated out of SSC-CPA project. The total amount of CFLs distributed for each household is no more than six.</p> <p>9. Actions are defined in the SSC-CPA-DD to be taken to encourage CFLs being installed in locations within the residences where the utilization hours are relatively high, for example common areas. For CFLs not directly installed these actions can include educating the CFL recipients of the best uses for CFLs.</p> <p>10. The proposed method of distribution of efficient lighting equipment and how ICL collection (e.g., exchanged for project CFLs) and destruction should be</p>		

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			<p>indicated in the CPA DD and the CFL manufacturer and project households will sign agreements with Zhenjiang Qiangling Energy-saving Light Source Co., Ltd. to relinquish their rights over the CERs generated from the project CFL use.</p> <p>11. Confirmation that this SSC-CPA is not registered or being registered, as a stand-alone CDM or as a CPA of another PoA.</p> <p>12. Confirmation that SSC-CPA is not a de-bundled component of another large-scale CPA or CDM project activity as per the latest guidance given in CDM EB.</p> <p>13. The NPV of the SSC-CPA is negative without the CDM revenue compared to the alternative that the CPA is not been implemented.</p> <p>14. The start date of the SSC-CPA is not, or will not be, prior to the commencement of validation of the programme of activities. The start date of the SSC-CPA shall be checked through documentary evidence.</p> <p>15. The crediting period of SSC-CPA should be within the 28 years of the crediting period of PoA</p> <p>16. Stakeholder consultation meeting is prior to the start date of SSC-CPA.</p>		



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			<p>17. Confirmation that no funding from Annex I parties; if any, does not result in a diversion of official development assistance</p> <p>18. Sampling plan should be described in each CPA and consistent with the latest standard or guideline for sampling survey</p> <p>19. Target group should be the households using ICLs for lighting, when carrying on the SSC-CPA of this PoA</p>		
3.6. In CDM-SSC-PoA-DD section A.4.3 are following demonstrated?	EB33	Ann 43			
3.6.1. The proposed PoA is a voluntary coordinated action	EB33	Ann 43	Yes.	OK	OK
3.6.2. If the PoA is implementing a voluntary coordinated action, it would not be implemented in the absence of the PoA	EB33	Ann 43	<p>It has been demonstrated that in the absence of the CDM, the proposed voluntary measure would not be implemented.</p> <p><del>CL-3</del></p> <p><del>Clarification is required on whether the additionality was demonstrated at CPA level or PoA level.</del></p> <p>CL-3 was closed out after the additionality assessment has been done at PoA level with the eligibility criteria for the additionality of CPAs.</p>	<del>CL-3</del>	OK

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
3.6.3. If the PoA is implementing a mandatory policy/regulation, this would/is not enforced	EB33	Ann 43	<p><del>CL-4</del>  <del>The PoA does not state whether the PoA is implementing a mandatory policy/regulation.</del></p> <p>CL-4 was closed out after Bureau Veritas Certification concluded that there are no mandatory requirements in Jiangsu Province and in China requiring the use of energy efficient CFL at the household level according to the clarification.</p> <p>There are no mandatory requirements in Jiangsu Province and in China requiring the use of energy efficient CFL at the household level. Although a notification of "The Provisional Measures of Financial Subsidy for Promoting Efficient Lighting Equipment" was jointly published by NDRC and Ministry of Finance in 2007. Due to this measurement, a certain amount of efficient lighting equipment was promoted with government subsidy in the past three years; however, the promotion was limited in major cities of China and small proportion was promoted in mass rural areas.</p>	<del>CL-4</del>	OK
3.6.4. If mandatory a policy/regulation is enforced, the PoA will lead to a greater level of enforcement of the existing mandatory	EB33	Ann 43	<p><del>Pending on CL-4</del>            N.A. as no mandatory policy/regulation is enforced.</p>	<del>Pending</del>	OK

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
policy/regulation					
3.7. In CDM-SSC-PoA-DD section A.4.4.1, is the description of the operational and management arrangement established by the coordinating/managing entity for the implementation of the PoA?	EB33	Ann 43			
3.7.1. A record keeping system for each CPA under the PoA	EB33	Ann 43	<p>Yes.</p> <p>A record keeping system for each CPA under the CPA has been designed in Section 4.4.1 of PoA DD, including:</p> <ol style="list-style-type: none"> <li>1. The geographical location of each CPA.</li> <li>2. The name, address and record of specifications of ICLs exchanged and distributed CFLs in households participating in the CPA.</li> <li>3. The names, addresses and monitoring data of each household involved in sample households for lamp failure rates and monitoring surveys.</li> <li>4. Destruction of ICLs. To facilitate random verification, dates of ICL destruction would be communicated to QL in advance by SSC-CPA implementer(s). To enhance process credibility, SSC-CPA shall carry out the destruction in the presence of responsible witnesses</li> </ol>	OK	OK

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			e.g. local environmental officials, or documented by time stamped video records.		
3.7.2. A system/procedure to avoid double accounting e.g. to avoid the case of including a new CPA that has been already registered either as a CDM project or as a CPA of another PoA	EB33	Ann 43	<p><del>CL-5</del>  <del>PoA-DD is silent about "Project 3659:Qiangling CFL Distribution Project", which has been registered as a CDM project within the defined geographic area of the PoA. Clarification is required on the system/procedure to avoid double accounting.</del></p> <p>CL-5 was closed out after the geographic area of "Project 3659:Qiangling CFL Distribution Project" has been excluded from the boundary of the PoA and Procedures to eliminate double counting of emission reductions have been included in the PoA-DD.</p>	<del>CL-5</del>	OK
3.7.3. The SSC-CPA included in the PoA is not a de-bundled component of another CPA or CDM project activity	EB33	Ann 43	<p><del>CL-6</del>  <del>Clarification is required on how to confirm that the maximum wattage rating of an ICL will be no more than 200W at PoA level.</del></p> <p>CL-6 was closed out after it was clarified that the maximum annual saved electricity of each distribution of a CFL is used for de-bundling check at CPA level.</p>	<del>CL-6</del>	OK
3.7.4. The provisions to ensure that those operating the CPA are aware of and have agreed that	EB33	Ann	<p>Yes.          Each SSC-CPA implementer will be the coordinating</p>	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
their activity is being subscribed to the PoA		43	entity itself or an entity who will sign an agreement with the coordinating entity, in which the implementer is aware of and have agreed that their activity is being subscribed to the PoA		
3.8. In CDM-SSC-PoA-DD section A.4.4.2, are following Information regarding monitoring plan provided?	EB33	Ann 43			
3.8.1. Description of the proposed statistically sound sampling method/procedure to be used by DOEs for verification of the amount of reductions of anthropogenic emissions by sources or removals by sinks of greenhouse gases achieved by CPAs under the PoA	EB33	Ann 43	<del>CL-7</del> Clarification is required on completeness of the ex post monitoring survey. CL-7 was closed out after the updated ex post monitoring survey is consistent with EB65 Annex02 and AMS II.J. Version04.	<del>CL-7</del>	OK
3.8.2. In case the coordinating/managing entity opts for a verification method that does not use sampling but verifies each CPA(whether in groups or not, with different or identical verification periods), a transparent system is to be defined and described that ensures that no double accounting occurs and that the status of verification can be determined anytime for each CPA	EB33	Ann 43	N.A.	OK	OK





## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
3.9. In CDM-SSC-PoA-DD section A.4.5, is Information regarding public funding of the PoA provided?	EB33	Ann 43	Yes. No public funding involved.	OK	OK
3.10. In CDM-SSC-PoA-DD section B.1, is starting date of the PoA provided?	EB33	Ann 43	Yes. 20/07/2012. (crediting period) or 01/03/2011(first CPA)	OK	OK
3.11. In CDM-SSC-PoA-DD section B.2, is length of the PoA provided?	EB33	Ann 43	Yes. 28 years.	OK	OK
3.12. In CDM-SSC-PoA-DD section C.1, is the choice of level at which the environmental analysis is undertaken justified?	EB33	Ann 43	Yes. The environmental analysis is undertaken at PoA level.	OK	OK
3.12.1. Environmental Analysis is done at PoA level	EB33	Ann 43	Yes.	OK	OK
3.12.2. Environmental Analysis is done at SSC-CPA level	EB33	Ann 43	N.A.	OK	OK
3.13. In CDM-SSC-PoA-DD section C.2, is the documentation on the analysis of the environmental impacts, including transboundary impacts provided?	EB33	Ann 43	Yes. The waste of the collected and destroyed ICLs will be handled in an appropriate and environmental friendly way with due care and safety without causing any hazard as specified by local authority.	OK	OK

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
3.14. In CDM-SSC-PoA-DD section C.3, is it stated that whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA included in the PoA?	EB33	Ann 43	Yes. The project type/category is not included in the “List of projects or activities requiring prior environmental clearance”, included in the “Environmental Protection Management of infrastructure projects” issued by Environment Protection Leading Group of the State Council. Thus this type of projects does not require an environmental impact assessment.	OK	OK
3.15. In CDM-SSC-PoA-DD section D.1, is the level at which local stakeholder comments are invited indicated?	EB33	Ann 43	Yes. Local stakeholder comments are invited at CPA level.	OK	OK
3.16. If local stakeholder comments are invited at the PoA level, In CDM-SSC-PoA-DD section D.2, is brief description given how comments by local stakeholders have been invited and compiled?	EB33	Ann 43	N.A.	OK	OK
3.17. If local stakeholder comments are invited at the PoA level, In CDM-SSC-PoA-DD section D.3, is summary of the comments received provided?	EB33	Ann 43	N.A.	OK	OK
3.18. If local stakeholder comments are invited at the PoA level, In CDM-SSC-PoA-DD section D.4, is report on how due account was taken of any	EB33	Ann 43	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
comments received provided?					
3.19. In CDM-SSC-PoA-DD section E.1, are title and reference of the approved SSC baseline and monitoring methodology applied to a SSC-CPA included in the PoA provided?	EB33	Ann 43	AMS-II.J: Demand-side activities for efficient lighting technologies (version 04)	OK	OK
3.20. In CDM-SSC-PoA-DD section E.2, are justification of the choice of the methodology and why it is applicable to a SSC-CPA provided?	EB33	Ann 43	Yes.	OK	OK
3.21. In CDM-SSC-PoA-DD section E.3, is description of the sources and gases included in the SSC-CPA boundary provided?	EB33	Ann 43	Yes. Therefore the project boundary is the physical, geographical location of each project CFL installed and all power plants connected physically to East China Power Grid(ECPG). The sources and gases included in the SSC-CPA boundary have been described in the table.	OK	OK
3.22. In CDM-SSC-PoA-DD section E.4, are description of how the baseline scenario is identified and description of the identified baseline scenario provided?	EB33	Ann 43	Yes. The baseline scenario can be defined as “the proposed project would not be invested by the project participant and the incandescent lamps (ICLs) of households in Jiangsu Province would be used and purchased as a continuation of current practice”	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
3.23. In CDM-SSC-PoA-DD section E.5.1, are assessment and demonstration of additionality for a typical SSC-CPA provided using the procedure provided in the baseline and monitoring methodology applied?	EB33	Ann 43	<p><del>CL-8</del></p> <p><del>CDM-SSC-PoA-DD section E.5.1 is silent about assessment and demonstration of additionality for a typical SSC-CPA.</del></p> <p>CL-8 was closed out after it was demonstrated that the typical SSC-CPA is consistent with the eligibility criteria for additionality set in PoA-DD.</p> <p>The SSC-CPA demonstrates the additionality using the guidance given in attachment A to Appendix B of the "Simplified modalities and procedures for small-scale CDM project activities"</p>	<del>CL-8</del>	OK
3.24. In CDM-SSC-PoA-DD section E.5.2, are the following provided? <ul style="list-style-type: none"> <li>- Key criteria for assessing additionality of a CPA when proposed to be included in the registered PoA</li> <li>- Demonstration how these criteria would be applied to assess the additionality of a typical CPA at the time of inclusion.</li> </ul>	EB33	Ann 43	<p>Yes.</p> <p>The key criteria is defined as "CPA project NPV is negative without CDM revenues" and "the start date of each CPA is or will not be prior to 19/01/2011."</p> <p>The NPV will be calculated using the template.</p>	OK	OK
3.25. In CDM-SSC-PoA-DD section E.6.1, is explanation of methodological choices, provided in the approved baseline and monitoring	EB33	Ann 43	<p>Yes.</p> <p>The parameters of methodological choices have been explained in CDM-SSC-PoA-DD section E.6.1</p>	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
methodology applied, selected for a typical SSC-CPA presented?					
3.26. In CDM-SSC-PoA-DD section E.6.2, are equations, including fixed parametric values, to be used for calculation of emission reductions of a SSC-CPA provided?	EB33	Ann 43	Yes. The equations to be used for calculation of emission reductions have been provided, in accordance with the applied methodology.	OK	OK
3.27. In CDM-SSC-PoA-DD section E.6.3, are data and parameters that are to be reported in CDM-SSC-CPA-DD provided using the table provided?	EB33	Ann 43	Yes. The data and parameters to be reported have been provided in CDM-SSC-PoA-DD section E.6.3.	OK	OK
3.28. In CDM-SSC-PoA-DD section E.7.1, are the following provided?	EB33	Ann 43			
3.28.1. Data and parameters to be monitored by each SSC-CPA	EB33	Ann 43	N: Sample size of monitoring survey LFR <sub>i,y</sub> : Ex post Lamp Failure Rate for CFL type i in year y (fraction) Date <sub>start</sub> and Date <sub>end</sub> : The start date and completion date of installation of CFLs Q <sub>BL,i</sub> : Number of each type of the replaced ICLs collected and destroyed Q <sub>PJ,i</sub> : Number of each type of CFLs in operation under the SSC-CPA	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			P <sub>i,BL</sub> : Rated power of each type of the replaced ICLs P <sub>i,PJ</sub> : Rated power of each type of CFLs		
3.28.2. For each parameter the following below information, using the table provided:	EB33	Ann 43			
3.28.2.1. The source of data to be used	EB33	Ann 43	Yes.	OK	OK
3.28.2.2. Measurement methods and procedures to be applied, including description of equipment used for measurement, if applicable and its accuracy class.	EB33	Ann 43	Yes.	OK	OK
3.28.2.3. QA/QC procedures to be used	EB33	Ann 43	Yes.	OK	OK
3.28.2.4. Any comment	EB33	Ann 43	N.A.	OK	OK
3.29. In CDM-SSC-PoA-DD section E.7.2, is description of the monitoring plan for a SSC-CPA provided?	EB33	Ann 43	The description of the monitoring plan has been provided in Section E.7.2 of the PoA-DD. <del>CL-9</del> The survey principles are silent about the design details of the survey which is required by the applied methodology.	<del>CL-9</del>	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			CL-9 was closed out after the design details of the survey was included in the survey principles		
3.30. In CDM-SSC-PoA-DD section E.8, are following provided? - Date of completion of the application of the baseline study and monitoring methodology - The name of the responsible person(s)/entity(ies)	EB33	Ann 43	Yes. The base line study and monitoring methodology has been determined on 20/12/2011 by: Sino Carbon Innovation & Investment Co.,Ltd (SCII)	OK	OK
3.31. In CDM-SSC-PoA-DD section Annex 1, is contact information on coordinating/managing entity and participants in the PoA provided?	EB33	Ann 43	Yes.	OK	OK
3.32. In CDM-SSC-PoA-DD Annex 2 is information regarding public funding provided?	EB33	Ann 43	N.A.	OK	OK
3.33. In CDM-SSC-PoA-DD Annex 3 is the baseline information provided?	EB33	Ann 43	N.A.	OK	OK
3.34. In CDM-SSC-PoA-DD Annex 4 is the monitoring information provided?	EB33	Ann 43	N.A.	OK	OK
<b>4. CDM-SSC-CPA-DD</b>	<b>EB33</b>	<b>Ann 44</b>			
4.1. In CDM-SSC-CPA-DD section A.1, are the	EB33	Ann	Yes.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl																											
following provided? - Title of CPA - Current version number and date of document		44	CFL Distribution Programme in Jiangsu Province” in Chuzhou District, Huaian City, Jiangsu Province, China GSP Version:01 Date:10/01/2011 Final Version:03.1 Date:28/03/2012																													
4.2. In CDM-SSC-CPA-DD section A.2, is description of the small-scale CPA provided?	EB33	Ann 44	Yes. The Project is developed under the Small-Scale Programme of Activities (PoA) titled “CFL Distribution Programme in Jiangsu Province”. The TCP CFLs will be distributed by SSC-CPA implementer to residents of Chuzhou District, Jiangsu province for free or for a minimal fee. No more than 6 CFLs with average life of 10,000h will be installed in high-usage areas i.e. bedroom, living room area and kitchen for each household. The distribution plan is listed as the table below <table border="1"> <thead> <tr> <th colspan="3">CFLs Distributed</th><th colspan="3">ICLs exchanged</th></tr> <tr> <th>Rated Power</th><th>Light output</th><th>Amount</th><th>Rated Power</th><th>Light output</th><th>Amount</th></tr> </thead> <tbody> <tr> <td rowspan="2">12W</td><td rowspan="2">760</td><td rowspan="2">944,315</td><td>40</td><td>415</td><td>503,507</td></tr> <tr> <td>60</td><td>715</td><td>440,808</td></tr> <tr> <td>22W</td><td>1450</td><td>63,707</td><td>100</td><td>1350</td><td>63,707</td></tr> </tbody> </table>	CFLs Distributed			ICLs exchanged			Rated Power	Light output	Amount	Rated Power	Light output	Amount	12W	760	944,315	40	415	503,507	60	715	440,808	22W	1450	63,707	100	1350	63,707	OK	OK
CFLs Distributed			ICLs exchanged																													
Rated Power	Light output	Amount	Rated Power	Light output	Amount																											
12W	760	944,315	40	415	503,507																											
			60	715	440,808																											
22W	1450	63,707	100	1350	63,707																											



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
4.3. In CDM-SSC-CPA-DD section A.3, is the information on the entity/individual responsible for the CPA included?	EB33	Ann 44	Yes. Zhenjiang Qiangling Energy-saving Light Source Co., Ltd. is responsible for the specific CPA.	OK	OK
4.4. In CDM-SSC-CPA-DD section A.4.1, is identification of the small-scale CPA provided?	EB33	Ann 44			
4.4.1. Host Party	EB33	Ann 44	P.R.China	OK	OK
4.4.2. Geographic reference or other means of identification	EB33	Ann 44	Yes. Specific CPA(001-PCDM-JS): Chuzhou District, Huaian City, Jiangsu Province North latitude 30°30' east longitude 119°08'	OK	OK
4.4.3. Name/contact details of the entity/individual responsible for the operation of the CPA	EB33	Ann 44	<del>CL-10</del> <del>Section A.4.1 of the specific CPA DD is silent about the Name/contact details of the entity/individual responsible for the operation of the CPA</del> CL-10 was closed out after it was indicated that Zhenjiang Qiangling Energy-saving Light Source Co., Ltd./ aurora.8513@hotmail.com is responsible for the CPA.	<del>CL-10</del>	OK
4.5. In CDM-SSC-CPA-DD section A.4.2, are following provided?	EB33	Ann 44			



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
4.5.1. Starting date of the small scale CPA	EB33	Ann 44	Yes. 01/03/2011, the signing date of supply agreement of CFLs with manufacturer	OK	OK
4.5.2. Expected operation lifetime of the small-scale CPA	EB33	Ann 44	Yes. 7 years 302days.	OK	OK
4.6. In CDM-SSC-CPA-DD section A.4.3, is the choice of the crediting period provided?	EB33	Ann 44	Yes, fixed crediting period was chosen.	OK	OK
4.6.1. Starting date of the crediting period	EB33	Ann 44	Yes. 01/05/2012. It is an indicative starting date and it will be updated by the secretariat as the effective date of registration, according to the Annex12 of EB 59 <sup>th</sup> meeting. The start date would be the declared end date of the CFL distribution process in SSC-CPA project area by the CPA Implementer and accepted by the Managing Entity, if it is later than the defined starting date above.	OK	OK
4.6.2. Length of the crediting period, first crediting period if the choice is renewable Crediting period	EB33	Ann 44	<del>CL-11</del> <del>Specific CPA-DD is silent about the length of the crediting period.</del> CL-11 was closed out after The crediting period of 7	<del>CL-11</del>	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			years and 302days has been included in the specific CPA-DD which is consistent with the applied methodology.		
4.7. In CDM-SSC-CPA-DD section A.4.4, is the estimated amount of emission reductions over the chosen crediting period correctly provided?	EB33	Ann 44	Yes. Total value of 234,665 tCO <sub>2</sub> emission reductions in 8 years.	OK	OK
4.8. In CDM-SSC-CPA-DD section A.4.5, is information regarding public funding of the CPA provided?	EB33	Ann 44	Yes. No public funding involved.	OK	OK
4.9. In CDM-SSC-CPA-DD section A.4.6, is information to confirm that the proposed small-scale CPA is not a de-bundled component provided?	EB33	Ann 44	As per section A.4.4.1 of the PoA, the SSC-CPA is exempt from performing de-bundling check.	OK	OK
4.9.1. Is there an activity, which: - Has the same activity implementer as the proposed small-scale CPA or has a coordinating or managing entity, which also manages a large scale PoA of the same scope; and - The boundary is within 1km of the boundary of the proposed small-scale CPA, at the closest point.	EB33	Ann 44	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
4.9.2. If a proposed small-scale CPA of a PoA is deemed to be a debundled component in accordance with para.2 of EB54 Annex13, but the total size of such a CPA combined with a registered small-scale CPA of a PoA or a registered CDM project activity does not exceed the limits for small-scale CDM and small-scale A/R project activities as set out in Annex II of decision 4/CMP.1 and 5/CMP.1, the CPA of a PoA can qualify to use simplified modalities and procedures for small-scale CDM and small-scale A/R CDM project activities.	EB33	Ann 44	N.A.	OK	OK
4.10. In CDM-SSC-CPA-DD section A.4.7, is it confirmed that the CPA is neither registered as a CDM project activity nor included in another registered PoA?	EB33	Ann 44	Yes.	OK	OK
4.11. In CDM-SSC-CPA-DD section B.1, are title and reference of the PoA provided to which SSC CPA is added?	EB33	Ann 44	Yes. CFL Distribution Programme in Jiangsu Province Version 01 Date: 02/01/2011 Version 03 Date: 20/12/2011	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
4.12. In CDM-SSC-CPA-DD section B.2, is justification of the why the small-scale CPA is eligible to be included in the PoA provided?	EB33	Ann 44	Yes. The justification has been provided.	OK	OK
4.13. In CDM-SSC-CPA-DD section B.3, are assessment and demonstration of additionality of the small-scale CPA provided , as per eligibility criteria listed in the PoA?	EB33	Ann 44	Yes.	OK	OK
4.14. In CDM-SSC-CPA-DD section B.4, are following provided?	EB33	Ann 44			
4.14.1. Description of the sources and gases included in the project boundary	EB33	Ann 44	Yes.	OK	OK
4.14.2. Proof that the small-scale CPA is located within the geographical boundary of the PoA	EB33	Ann 44	CL-12 <del>Section B.4 of specific CPA DD is silent about the proof that the small-scale CPA is located within the geographical boundary of the PoA.</del> CL-12 was closed out after it has been demonstrated that the specific CPA is located within the geographical boundary of the PoA.	<del>CL-12</del>	OK
4.15. In CDM-SSC-CPA-DD section B.5.1, are data and parameters that are available at validation	EB33	Ann 44	<del>CAR-3</del> <del>The emission factor indicated in Section B.5 of the</del>	<del>CAR-3</del>	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
provided?			specific CPA-DD is not consistent with that in Annex 3- CAR-3 was closed out after the emission factor of 0.76907 tCO <sub>2</sub> e/MWh was used throughout the specific CPA-DD.		
4.16. In CDM-SSC-CPA-DD section B.5.2, is ex-ante calculation of emission reductions provided?	EB33	Ann 44	Yes.	OK	OK
4.17. In CDM-SSC-CPA-DD section B.5.3, is summary of the ex-ante estimation of emission reductions provided in a tabular format?	EB33	Ann 44	Yes.	OK	OK
4.18. In CDM-SSC-CPA-DD section B.6.1, is description of the monitoring plan provided in accordance with the monitoring methodology?	EB33	Ann 44	Yes.	OK	OK
4.19. In CDM-SSC-CPA-DD section C.1, is the choice of level at which the environmental analysis is undertaken justified?	EB33	Ann 44	Yes. PoA level.	OK	OK
4.20. If environmental analysis is undertaken at CPA level, in CDM-SSC-CPA-DD section C.2, is documentation on the analysis of the environmental impacts including transboundary impacts provided?	EB33	Ann 44	N.A.	OK	OK





## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
4.21. If environmental analysis is undertaken at CPA level, in CDM-SSC-CPA-DD section C.3, is it stated that whether an environmental impact assessment is required for a typical CPA included in the PoA, in accordance with the host Party laws/regulations.	EB33	Ann 44	N.A.	OK	OK
4.22. In CDM-SSC-CPA-DD section D.1, is the level at which local stakeholder comments are invited indicated?	EB33	Ann 44	Yes. CPA level.	OK	OK
4.23. If local stakeholder comments are invited at CPA level, In CDM-SSC-CPA-DD section D.2, is brief description how comments by local stakeholders have been invited and compiled provided?	EB33	Ann 44	<p><del>CL-13</del>  <del>Specific CPA-DD is silent about the number of the questionnaires and when local stakeholder comments were invited and the meeting was held.</del></p> <p>CL-13 was closed out after the time when local stakeholder comments were invited was specified in the CPA-DD and the relevant evidence has been provided and verified.</p> <p>A stakeholder consultation meeting was carried out on 18/11/2010 and 50 questionnaires survey were made among the local stakeholders in Chuzhou District from 18/11/2010 to 30/11/2010.</p>	<del>CL-13</del>	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
4.24. If local stakeholder comments are invited at CPA level, In CDM-SSC-CPA-DD section D.3, is summary of the comments received provided?	EB33	Ann 44	Yes. The survey shows that the proposed project receives strong support from local people, which is closely linked to the fact that the majority of local residents have some understandings with C FL di str ibution p roject. A ll t he respondents believe t hat the Project will have overall positive impacts on their livelihoods with decrease of electricity fee, improve of living environment and others. 100% of the investigated people are supportive to the project implementation.	OK	OK
4.25. If local stakeholder comments are invited at CPA level, In CDM-SSC-CPA-DD section D.4, is report on how due account was taken of any comments received provided?	EB33	Ann 44	No need to modify the project due to comments received.	OK	OK
4.26. In CDM-SSC-CPA-DD Annex 1, is contact information on entity/individual responsible for the small-scale CPA provided?	EB33	Ann 44	Yes.	OK	OK
4.27. In CDM-SSC-CPA-DD Annex 2, is information regarding public funding provided?	EB33	Ann 44	N.A.	OK	OK
4.28. In CDM-SSC-CPA-DD Annex 3, is baseline information provided?	EB33	Ann 44	Yes. The calculation of emission factors of ECPG has been	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			provided.		
4.29. In CDM-SSC-CPA-DD Annex 4, is monitoring information provided?	EB33	Ann 44	Yes. The sampling plan has been provided.	OK	OK
<b>5. Baseline and monitoring methodology</b>					
<b>5.1. General requirement</b>	<b>VVM</b>	<b>65-67</b>			
5.1.1. Do the the baseline and monitoring methodologies selected by the project participants comply with the methodologies previously approved by the CDM Executive Board?	VVM	65	Yes. AMS- II .J. "Demand-side activities for efficient lighting technologies" (version 0 4), w hich co mplies with the methodologies previously approved by the CDM EB.	OK	OK
5.1.2. Is the selected methodology applicable to the CPA?	VVM	66	Yes.	OK	OK
5.1.3. Had the PP correctly applied the selected methodology?	VVM	66	Yes.	OK	OK
5.1.4. Had the selected methodology been correctly applied with respect to project boundary?	VVM	67	Yes.	OK	OK
5.1.5. Had the selected methodology been correctly applied with respect to baseline identification?	VVM	67	Yes.	OK	OK
5.1.6. Had the selected methodology been correctly	VVM	67	Yes.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
applied with respect to Algorithms and/or formulae used to determine emission reductions?					
5.1.7. Had the selected methodology been correctly applied with respect to additionality?	VVM	67	Yes.	OK	OK
5.1.8. Had the selected methodology been correctly applied with respect to monitoring methodology?	VVM	67	Yes.	OK	OK
<b>5.2. Applicability of the selected methodology to the CPA</b>	VVM	68-77			
5.2.1. Is the selected baseline and monitoring methodology, previously approved by the CDM Executive Board, applicable to the project activity including that the used version is valid?	VVM	68	Yes. AMS- II .J.(Version4) is valid from 11/06/2010.	OK	OK
5.2.2. Has the DOE applied specific guidance provided by the CDM Executive Board in respect to the applicable approved methodology?	VVM	69	No.	OK	OK
5.2.3. Is the methodology correctly quoted?	VVM	70	Yes.	OK	OK
5.2.4. Are the applicability conditions of the methodology met?	VVM	71			
5.2.4.1. Does the CPA lead to efficient use of electricity	AMS II.J	Ver.4	Yes.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
through the adoption of self-ballasted compact fluorescent lamps (CFLs) to replace incandescent lamps (ICLs) in residential applications?			The CPA will lead to efficient use of electricity through the adoption of self-ballasted compact fluorescent lamps (CFLs) to replace incandescent lamps (ICLs) in residential applications.		
5.2.4.2. Have the eligible self-ballasted CFLs integrated ballasts as a non-removal part?	AMS II.J	Ver.4	Yes.	OK	OK
5.2.4.3. Are the CFLs adopted to replace existing equipment new equipment not transferred from another activity?	AMS II.J	Ver.4	Yes. New equipments of CLFs will be adopted.	OK	OK
5.2.4.4. Is the total lumen output of the CFL equal to or more than that of the ICL being replaced and determined in accordance with relevant national or international standard/s?	AMS II.J	Ver.4	<del>CL-14</del> <del>The specific CPA DD is silent about the lumen output of the CFLs and ICLs.</del> CL-14 was closed out after it was demonstrated that the CFLs to be distributed have larger lumen output and lower rate power than the ICLs to be exchanged.	<del>CL-14</del>	OK
5.2.4.5. Is the lumen output of CFL&ICL determined in accordance with relevant national or international standards?	AMS II.J	Ver.4	Yes. The lumen output of ICL was determined as per AMS.II.J. Version 04. The lumen output of CFL was determined in accordance international standard IEC 60969 as per the testing reports.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
5.2.4.6. Does the aggregate electricity savings by a single project activity exceed the equivalent of 60 GWh per year?	AMS II.J	Ver.4	No.	OK	OK
5.2.4.7. Is the average life or the rated average life of the CFLs known ex ante?	AMS II.J	Ver.4	Yes.	OK	OK
5.2.4.8. If yes, is the standard used cited?	AMS II.J	Ver.4	Yes. IEC60969	OK	OK
5.2.4.9. If the average life value is not available ex ante. It shall be made available for verification before or at the same time that the results of the second <i>ex post</i> monitoring survey, are available for verification. The laboratory conducting and certifying the tests to determine CFL average life shall comply with the requirements of a relevant national or international standard, e.g., ISO/IEC 17025.	AMS II.J	Ver.4	<del>CL-15</del> Clarification is required on whether the average life value is available ex ante. CL-15 was closed out after it was clarified that the average life value had been determined ex ante according to the testing reports issued by a third party.	<del>CL-15</del>	OK
5.2.4.10. Are CFLs utilized under the CPA marked for clear unique identification addition to the standard lamp specifications?	AMS II.J	Ver.4	Yes. The label on the project CFL will be clearly marked.	OK	OK
5.2.4.11. Is it explained that the proposed method of distribution of efficient lighting equipment and	AMS II.J	Ver.4	Yes. The method of distribution of CFLs has been provided	OK	OK

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
that how ICL collection(e.g. exchange for project CFLs) and destruction will be conducted and documented?			<p>in specific CPA DD. Recording, storage and destruction of ICLs have also specified.</p> <p>The replaced I CLs will be collected and stored in appropriate boxes indicating the wattages of the replaced ICLs. Each box will state the number of ICLs stored in that box. The boxes will be stored at dedicated storage facilities.</p> <p>The CPA Implementer will arrange for destruction, which will be documented via witnessing by local environmental officials or time stamped video records.</p>		
5.2.4.12. Is it explained that how the proposed procedures eliminate double counting of Emission Reductions?	AMS II.J	Ver.4	<p><del>CL-16</del></p> <p><del>The specific CPA DD is silent about how the proposed procedures eliminate double counting of Emission Reductions at the CPA level.</del></p> <p>CL-16 was closed out after it was clarified that Both the manufacturer and the participating residents would give up the emission reductions.</p>	<del>CL-16</del>	OK
5.2.4.13. Does project participants undertake at least one of the following actions to limit undesired secondary market effects and free riders by ensuring that replaced lamps are exchanged and destroyed?	AMS II.J	Ver.4	<p>Yes.</p> <p>No more than 6 CFLs will be distributed to each household.</p>	OK	OK

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
<ul style="list-style-type: none"> <li>- Directly installing the CFLs?</li> <li>- Charging at least a minimal price for efficient lighting equipment?</li> <li>- Restricting the number of lamps per household distributed through the project activity to six?</li> </ul>					
5.2.4.14. Are actions defined to be taken to encourage CFLs being installed in locations within the residences where the utilization hours are relatively high? For CFLs not directly installed, can these actions include educating the CFL recipients of the best uses for CFLs.	AMS II.J	Ver.4	<p>Yes.</p> <p>The CFLs should be installed in high-usage areas i.e. bedroom, living room area and kitchen.</p> <p><del>CL-17</del></p> <p><del>Specific CPA DD is silent about whether these actions include educating the CFL recipients of the best uses for CFLs for CFLs not directly installed.</del></p> <p>CL-17 was closed out after the actions including educating the CFL recipients of the best uses for CFLs not directly installed have been included in Section A.2 of the specific CPA-DD.</p>	<del>CL-17</del>	OK
5.2.5. Is the CPA expected to result in emissions other than those allowed by the methodology?	VVM	71	No.	OK	OK
5.2.6. Is the choice of the methodology justified?	VVM	71	Yes.	OK	OK
5.2.7. Have the project participants shown that the	VVM	71	<del>Pending on CL-14 CL-15, CL-16 and CL-17</del>	<del>Pending</del>	OK





## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
CPA meets each of the applicability conditions of the approved methodology?			Yes. The CPA meets each of the applicability conditions of the applied methodology.		
5.2.8. Have the project participants shown that the CPA meets each of the applicability conditions of any tool or other methodology component referred to the methodology?	VVM	71	Yes.	OK	OK
5.2.9. Is the DOE, based on local and sectoral knowledge, aware that comparable information is available from sources other than that used in the DDs?	VVM	71	No.	OK	OK
5.2.10. If yes, were the DDs cross checked against the other sources to confirm that the project activity meets the applicability conditions of the methodology? (provide the reference to these choices)	VVM	71	N.A.	OK	OK
5.2.11. Can a determination regarding the applicability of the selected methodology to the proposed CPA be made?	VVM	72	Yes.	OK	OK
5.2.12. If no, clarification of the methodology was requested, in accordance with the guidance	VVM	72	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
provided by the CDM Executive Board?					
5.2.13. If answer to (5.b.k) above is “no”, revision or deviation from the methodology was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	73	N.A.	OK	OK
5.2.14. If yes to (5.b.j) and (5.b.k) above, a request for registration was submitted before the CDM Executive Board has approved the proposed deviation or revision?	VVM	74	N.A.	OK	OK
<b>5.3. Project boundary</b>	<b>VVM</b>	<b>78-80</b>			
5.3.1. Is the delineation in the CPA-DD of the project boundary correct and include identification of all locations, processes and equipment including secondary equipment and associated processes such as logistics etc.?	VVM	79	Yes. The project boundary is the physical, geographical location of each project C FL installed and all power plants connected physically to East China Power Grid.	OK	OK
5.3.2. Does the delineation in the CPA-DD of the project boundary meet the requirements of the selected baseline?	VVM	79	Yes.	OK	OK
5.3.3. Have all sources and GHGs required by the methodology been included within the project boundary?	VVM	79	Yes.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
5.3.4. Does the methodology allow project participant to choose whether a source or gas is to be included within the project boundary?	VVM	79	No.	OK	OK
5.3.5. If yes, have the project participants justified that choice?	VVM	79	N.A.	OK	OK
5.3.6. If yes, is the justification provided reasonable? (provide reference to the supporting documented evidence provided by the project participants)	VVM	79	N.A.	OK	OK
<b>5.4. Baseline identification</b>	VVM	81-88			
5.4.1. Does the methodology require several alternative scenarios to be considered in the identification of the most reasonable baseline scenario?	VVM	83	No.	OK	OK
5.4.2. If yes, are all scenarios that are considered by the project participants and are supplementary to those required by the methodology reasonable in the context of the proposed CDM project activity?	VVM	83	N.A.	OK	OK
5.4.3. Has any reasonable alternative scenario been excluded?	VVM	83	No. It is not necessary as per the applied methodology.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
5.4.4. Is the baseline scenario identified reasonably supported by:	VVM	84	<p><del>CL-18</del></p> <p><del>Clarification is required on the methods of the identification of the baseline scenario.</del></p> <p>CL-18 was closed out after Bureau Veritas Certification has checked the result of the random sampling investigation for the CPA and concludes that the baseline scenario was correctly identified.</p>	<del>CL-18</del>	OK
5.4.4.1. Assumptions?	VVM	84	<p>Pending</p> <p>No</p>	<del>Pending</del>	OK
5.4.4.2. Calculations?	VVM	84	<p>Pending</p> <p>No</p>	<del>Pending</del>	OK
5.4.4.3. Rationales?	VVM	84	<p>Pending</p> <p>No</p>	<del>Pending</del>	OK
5.4.5. Are the documents and sources referred to in the CPA-DD correctly quoted and interpreted?	VVM	84	Yes.	OK	OK
5.4.6. Was the information provided in the DD cross checked with other verifiable and credible sources, such as local expert opinion, if available? (identify the sources)	VVM	84	N.A.	OK	OK
5.4.7. Have all applicable CDM requirements been	VVM	85	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
taken into account in the identification of the baseline scenario for the proposed CPA?					
5.4.8. Have all relevant policies and circumstances been identified and correctly considered in the DD, in accordance with the guidance by the CDM Executive Board?	VVM	85	Yes.	OK	OK
5.4.9. Does the DD provide a verifiable description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CPA?	VVM	86	Yes. Continued use of ICLs.	OK	OK
<b>5.5. Algorithms and/or formulae used to determine emission reductions</b>	VVM	89-93			
5.5.1. Have the equations and parameters in the DD been correctly applied with respect those in the select approved methodology?	VVM	90	<del>CL-19</del> Clarification is required on whether the steps for emission reductions calculation indicated in AMS-II.J. Version 4 are applied. CL-19 was closed out after steps for emission reductions calculation in AMS-II.J Version 04 have been used in Section B.5.2 of the specific CPA-DD.	<del>CL-19</del>	OK
5.5.1.1. Estimate the nameplate/rated power (Watts) of	AMS II.J	Ver.4	<del>Pending on CL-19</del>	<del>Pending</del>	OK

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
the baseline incandescent lamps to be replaced.			Yes.		
5.5.1.2. Determine operating hours of project (and baseline) lamps using one of the following two options: - 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 <i>ex ante</i> and is used <i>ex post</i> throughout the crediting period. In this case no surveying to determine $O_i$ is required. - Option 2: Instead of using a default value of 3.5 hours for $O_i$ , a measured value can be used for the <i>ex ante</i> estimate using the sampling requirements indicated in the definition of $O_i$ for equation (2).	AMS II.J	Ver.4	<del>Pending on CL-18</del> Yes. A default value of 3.5 hours per 24 hrs period for 'daily operating hours'.	<del>Pending</del>	OK
5.5.1.3. 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;	AMS II.J	Ver.4	<del>Pending on CL-19</del> Yes. $ES_i = (P_{i,BL} - P_{i,PJ}) \times O_i \times 365 / 1000$	<del>Pending</del>	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
5.5.1.4. 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	AMS II.J	Ver.4	<p><del>Pending on CL-19</del></p> <p>Yes.</p> $NES_y = \sum_{i=1}^n Q_{PJ,i} \times (1 - LFR_{i,y}) \times ES_i \times \frac{1}{(1 - TD_y)} \times NTG$ <p>NTG:0.95 Tdy:10%</p> <p>The Lamp Failure Rate (<math>LFR_{i,y}</math>) is the % of lamps that have failed during a year. The average life is used to calculate the ex ante Lamp Failure Rate as follows:</p> <p>If <math>y * X_i &lt; L_i, LFR_{i,y} = y * X_i * (100 - R_i) / (100 \times L_i)</math></p> <p>If <math>y * X_i &gt; or = L_i, LFR_{i,y} = 1</math></p>	<del>Pending</del>	OK
5.5.2. Does the methodology provide for selection between different options for equations or parameters?	VVM	90	<p>Yes.</p> <p>Only options for <math>LFR_{i,y}</math>.</p>	OK	OK
5.5.3. If yes, has adequate justification been provided (based on the choice of the baseline scenario,	VVM	90	<p>Yes.</p> <p>The justification is correct in the E R calculation</p>	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
context of the proposed CPA and other evidence provided)?			spreadsheet.		
5.5.4. If yes, have correct equations and parameters been used, in accordance with the methodology selected?	VVM	90	Yes.	OK	OK
5.5.5. Will data and parameters be monitored throughout the crediting period of the proposed CPA?	VVM	91	Yes. $LFR_{i,y}$ will be monitored throughout the crediting period.	OK	OK
5.5.6. If no, and these data and parameters will remain fixed throughout the crediting period, are all data sources and assumptions:	VVM	91			
5.5.6.1. Appropriate and correct?	VVM	91	Yes.	OK	OK
5.5.6.2. Applicable to the proposed CPA?	VVM	91	Yes.	OK	OK
5.5.6.3. Resulting in a conservative estimate of the emission reductions?	VVM	91	Yes.	OK	OK
5.5.7. Will data and parameters be monitored on implementation and hence become available only after validation of the CPA?	VVM	91	No.	OK	OK
5.5.8. If yes, are the estimates provided in the DD for	VVM	91	N.A.	OK	OK





## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
these data and parameters reasonable?					
<b>6. Additionality of a project activity</b>	VVM	94-97			
<b>6.1. General checklist</b>					
6.1.1. Is the latest version of the additionality used?	VVM	95	Yes. The Attachment A to Appendix B of the Simplified Modalities and Procedures is applied.	OK	OK
6.1.2. Has the PP demonstrated additionality by explaining Investment barrier, Access-to-finance barrier, Technological barrier, Barrier due to prevailing practice or other barriers?	EB 35	Ann 34	Yes. Investment barrier was demonstrated.	OK	OK
6.1.3. If Investment barrier has been explained, is it demonstrated that financially more viable alternative to the project activity would have led to higher emissions? Please explain.	EB 35	Ann 34	Yes. The baseline scenario would have led to higher emissions.	OK	OK
6.1.4. If Access-to-finance has been explained, is it demonstrated that the project activity could not access appropriate capital without consideration of the CDM revenues? Please explain.	EB 35	Ann 34	N.A.	OK	OK
6.1.5. If Technological barrier has been explained, is it demonstrated that a less technologically	EB 35	Ann 34	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
advanced alternative to the project activity involves lower risks due to the performance uncertainty or low market share of the new technology adopted for the project activity and so would have led to higher emissions? Please explain.					
6.1.6. If prevailing practise barrier has been explained, is it demonstrated that the prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions? Please explain.	EB 35	Ann 34	N.A.	OK	OK
6.1.7. If other barrier has been explained, is it demonstrated that Other barriers such as institutional barriers or limited information, managerial resources, organizational capacity, or capacity to absorb new technologies would prevent the project activity any way?	EB 35	Ann 34	N.A.	OK	OK
6.1.8. Have the project participants identified the most relevant barrier?	EB 35	Ann 34	Yes. Investment barrier is the most relevant barrier.	OK	OK
6.1.9. Have the project participants provided	EB 35	Ann 34	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
transparent and documented third party evidence such as national/international statistics, national/provincial policy and legislation, studies/surveys by independent agencies etc. to demonstrate the most relevant barrier? Please explain.					
<b>6.2. Prior consideration of the clean development mechanism</b>	VVM	98-104			
6.2.1. Does the CPA require construction, retrofit or other modifications?	VVM	99	No.	OK	OK
6.2.2. If yes, is it ensured that the date of commissioning cannot be considered as the CPA start date?	VVM	99	N/A.	OK	OK
6.2.3. Is it confirmed that the start date of any CPA is not, or will not be, prior to the commence of validation of the PoA, i.e. the date on which the CDM-PoA-DD is first published for global stakeholder consultation?	EB55 Ann38	7.d	Yes.  The CDM -PoA-DD was first published for global stakeholder consultation on 19/01/2011. The first CPA is planned to start on 01/03/2011, which was demonstrated during the on-site visit of Bureau Veritas Certification from 21/02/2011 to 23/02/2011.  Thus it can be confirmed the start date is not prior to the commence of validation of the PoA.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
<b>6.3. Identification of alternatives</b>	VVM	105-1 07			
6.3.1. Does the approved methodology that is selected by the proposed CPA prescribe the baseline scenario and hence no further analysis is required?	VVM	105	N.A.	OK	OK
6.3.2. If no, does the DD identify credible alternatives to the project activity in order to determine the most realistic baseline scenario?	VVM	105	N.A.	OK	OK
6.3.3. Does the list of alternatives given in the DD ensure that:	VVM	106	Yes.	OK	OK
6.3.3.1. the list of alternatives includes as one of the options that the project activity is undertaken without being registered as a proposed CPA?	VVM	106	Yes.	OK	OK
6.3.3.2. the list contains all plausible alternatives that the DOE, on the basis of its local and sectoral knowledge, considers to be viable means of supplying the outputs or services that are to be supplied by the proposed CPA?	VVM	106	Yes.	OK	OK
6.3.3.3. the alternatives comply with all applicable and	VVM	106	Yes.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
enforced legislation?					
<b>6.4. Investment analysis</b>	VVM	108-1 14			
6.4.1. Has investment analysis been used to demonstrate the additionality of the proposed CPA?	VVM	108	Yes.	OK	OK
6.4.2. If yes, does the DD provide evidence that the proposed CPA would not be:	VVM	108			
6.4.2.1. the most economically or financially attractive alternative?	VVM	108	Yes..	OK	OK
6.4.2.2. economically or financially feasible, without the revenue from the sale of certified emission reductions (CERs)?	VVM	108	No	OK	OK
6.4.3. Was this shown by one of the following approaches?	VVM	109			
6.4.3.1. The proposed CPA would produce no financial or economic benefits other than CDM-related income. Document the costs associated with the proposed CPA and the alternatives identified and demonstrate that there is at least	VVM	109	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
one alternative which is less costly than the proposed CDM project activity.					
6.4.3.2. The proposed CDM project activity is less economically or financially attractive than at least one other credible and realistic alternative.	VVM	109	Yes. The proposed CPA is less than the baseline scenario.	OK	OK
6.4.3.3. The financial returns of the proposed CPA would be insufficient to justify the required investment.	VVM	109	N.A.	OK	OK
6.4.4. Is the period of assessment limited to the proposed crediting period of the CPA?	EB 62	Ann 05	No. It is limited to the lifetime of the CPA.	OK	OK
6.4.5. Does the project IRR and equity IRR calculations reflect the period of expected operation of the underlying project activity (technical lifetime), or - if a shorter period is chosen - include the fair value of the project activity assets at the end of the assessment period?	EB 62	Ann 05	N.A.	OK	OK
6.4.6. Does the IRR calculation include the cost of major maintenance and/or rehabilitation if these are expected to be incurred during the period of assessment?	EB 62	Ann 05	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
6.4.7. Do the project participants justify the appropriateness of the period of assessment in the context of the underlying project activity, without reference to the proposed CDM crediting period?	EB 62	Ann 05	N.A.	OK	OK
6.4.8. Does the cash flow in the final year include a fair value of the project activity assets at the end of the assessment period?	EB 62	Ann 05	N.A.	OK	OK
6.4.9. Has the fair value been calculated in accordance with local accounting regulations where available, or international best practice?	EB 62	Ann 05	N.A.	OK	OK
6.4.10. Does the fair value calculations include both the book value of the asset and the reasonable expectation of the potential profit or loss on the realization of the assets?	EB 62	Ann 05	N.A.	OK	OK
6.4.11. Was depreciation, and other non-cash items related to the project activity, which have been deducted in estimating gross profits on which tax is calculated, added back to net profits for the purpose of calculating the financial indicator (e.g. IRR, NPV)?	EB 62	Ann 05	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
6.4.12. Has taxation been included as an expense in the IRR/NPV calculation in cases where the benchmark or other comparator is intended for post-tax comparisons?	EB 62	Ann 05	Yes.	OK	OK
6.4.13. Are the input values used in all investment analysis valid and applicable at the time of the investment decision taken by the project participant?	EB 62	Ann 05	Yes.	OK	OK
6.4.14. Is the timing of the investment decision consistent and appropriate with the input values?	EB 62	Ann 05	Yes. Based on the financial analysis conducted by the Coordinating/managing Entity itself on 06/12/2010, the Coordinating/managing Entity made the investment decision of the PoA at the same day.	OK	OK
6.4.15. Are all the listed input values been consistently applied in all calculations?	EB 62	Ann 05	Yes.	OK	OK
6.4.16. Does the investment analysis reflect the economic decision making context at point of the decision to recommence the project in the case of project activities for which implementation ceases after the commencement and where implementation is recommenced due to	EB 62	Ann 05	No.	OK	OK





## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
consideration of the CDM?					
6.4.17. Have project participants supplied the spreadsheet versions of all investment analysis?	EB 62	Ann 05	Yes.	OK	OK
6.4.18. Are all formulas used in this analysis readable and all relevant cells be viewable and unprotected?	EB 62	Ann 05	Yes.	OK	OK
6.4.19. In cases where the project participant does not wish to make such a spreadsheet available to the public has the PP provided an exact read-only or PDF copy for general publication?	EB 62	Ann 05	N.A.	OK	OK
6.4.20. In case the PP wishes to black-out certain elements of the publicly available version, is it justifiable?	EB 62	Ann 05	N.A.	OK	OK
6.4.21. Was the cost of financing expenditures (i.e. loan repayments and interest) included in the calculation of project IRR?	EB 62	Ann 05	N.A.	OK	OK
6.4.22. In the calculation of equity IRR, has only the portion of investment costs which is financed by equity been considered as the net cash outflow?	EB 62	Ann 05	N.A.	OK	OK
6.4.23. Has the portion of the investment costs which is	EB 62	Ann 05	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
financed by debt been considered a cash outflow in the calculation of equity IRR? (this is not allowed)					
6.4.24. Was a pre-tax benchmark be applied?	EB 62	Ann 05	N.A.	OK	OK
6.4.25. In cases where a post-tax benchmark is applied, is actual interest payable taken into account in the calculation of income tax?	EB 62	Ann 05	N.A.	OK	OK
6.4.26. In cases where a benchmark approach is used is the applied benchmark appropriate to the type of IRR calculated?	EB 62	Ann 05	N.A.	OK	OK
6.4.27. Has local commercial lending rates or weighted average costs of capital (WACC) selected as appropriate benchmarks for a project IRR?	EB 62	Ann 05	N.A.	OK	OK
6.4.28. Has required/expected returns on equity selected as appropriate benchmark for an equity IRR?	EB 62	Ann 05	N.A.	OK	OK
6.4.29. In case benchmarks supplied by relevant national authorities selected is it applicable to the project activity and the type of IRR calculation presented?	EB 62	Ann 05	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
6.4.30. In the cases of projects which could be developed by an entity other than the project participant is the benchmark applied based on publicly available data sources which can be clearly validated?	EB 62	Ann 05	N.A.	OK	OK
6.4.31. Whether a company-specific benchmark or a benchmark based on parameters that are standard in the market is suitable in the context of the underlying project activity?	EB 62	Ann 05	N.A.	OK	OK
6.4.32. Have internal company benchmarks/expected returns (including those used as the expected return on equity in the calculation of a weighted average cost of capital - WACC) been applied in cases where there is only one possible project developer?	EB 62	Ann 05	N.A.	OK	OK
6.4.33. In such cases, have these values been used for similar projects with similar risks, developed by the same company or, if the company is brand new, would have been used for similar projects in the same sector in the country/region?	EB 62	Ann 05	N.A.	OK	OK
6.4.34. Has a minimum clear evidence of the resolution	EB 62	Ann 05	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
by the company's Board and/or shareholders been provided to the effect as above?					
6.4.35. Has a thorough assessment of the financial statements of the project developer - including the proposed WACC - to assess the past financial behavior of the entity during at least the last 3 years in relation to similar projects been conducted?	EB 62	Ann 05	N.A.	OK	OK
6.4.36. If a company internal benchmark is used, is it derived from the Capital Asset Pricing Model (CAPM)?	EB 62	Ann 05	N.A.	OK	OK
6.4.37. If yes, are the resulting benchmarks consistently used by the company in the past?	EB 62	Ann 05	N.A.	OK	OK
6.4.38. If the benchmark is based on parameters that are standard in the market, is the cost of equity determined either by: (a) selecting the values provided in Appendix A; or by (b) calculating the cost of equity using best financial practices, based on data sources which can be clearly validated by the DOE, while properly justifying all underlying factors.	EB 62	Ann 05	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
6.4.39. If a company internal benchmark is used, are the values in the table in Appendix A used, as a simple default option?	EB 62	Ann 05	N.A.	OK	OK
6.4.40. If a company's internal benchmark is used for the expected return on equity, is the cost of debt based on the weighted average cost of debt financing of the legal entity owning the CDM project activity?	EB 62	Ann 05	N.A.	OK	OK
6.4.41. For loans, is the weighted average cost of outstanding long-term debt used?	EB 62	Ann 05	N.A.	OK	OK
6.4.42. For bonds, is the weighted average yield of the bonds during the last three months prior to the submission of the CDM-PDD for validation or prior to the investment decision, whichever is earlier, used? The use of bonds to determine the cost of debt is only appropriate for corporate bonds issued in the host country of the CDM project.	EB 62	Ann 05	N.A.	OK	OK
6.4.43. In cases where the debt finance structure of the project is not yet available (e.g. a letter of intent for debt funding is not available), the cost of debt	EB 62	Ann 05	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
can be assumed as the commercial lending rate in the country or the yield of a 10 year bond issued by the government of the host country or, if this is not available, the bond with the maturity which is closest to 10 years. The following should be documented in the CDM-PDD					
6.4.43.1.(a) for bonds: the key parameters of the bond including the time of maturity, yield, registration issuance in the financial system and set-up in the market;	EB 62	Ann 05	N.A.	OK	OK
6.4.43.2.(b) for loans from a financial institution: the contract of lending between the financial institution and the legal entity owning the assets of the project activity, or, in absence of the contract, a letter from the bank stating its intention to award the loan and the key terms for the loan	EB 62	Ann 05	N.A.	OK	OK
6.4.43.3. for debt financing from a parent company: the transfer of capital to the legal entity, documented with the contract of lending between the parent company and the legal entity owning the assets of the project activity	EB 62	Ann 05	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
and/or the parameters of the corporate bonds as mentioned above.					
6.4.44. This latter option is only valid for corporate bonds issued in the host country of the CDM project activity.	EB 62	Ann 05	N.A.	OK	OK
6.4.45. If the benchmark is based on parameters that are standard in the market, is the cost of debt calculated as the cost of financing in the capital markets (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on documented evidence from financial institutions with regard to the cost of debt financing of comparable projects?	EB 62	Ann 05	N.A.	OK	OK
6.4.46. In cases where this data is not available, is the commercial lending rate in the host country used to calculate the cost of debt.	EB 62	Ann 05	N.A.	OK	OK
6.4.47. If a company's internal benchmark is used for the expected return on equity, is the percentage of debt financing and equity financing reflect the long-term debt/equity finance structure of the legal entity owning the assets of the project	EB 62	Ann 05	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
activity?					
6.4.48. If: (a) the legal entity owning the assets of the project activity has balance sheets audited by a third party within two years prior to the submission of the CDM-PDD for validation; and (b) the accounting books of the legal entity reflect at least the total value of all the assets needed for the project activity. Is the percentage determined based on the latest balance sheet provided under local fiscal/accounting standards and rules?	EB 62	Ann 05	N.A.	OK	OK
6.4.49. If the debt/equity finance structure is not yet available, 50% debt and 50% equity financing may be assumed as a default.	EB 62	Ann 05	N.A.	OK	OK
6.4.50. Is the benchmark based on parameters that are standard in the market?	EB 62	Ann 05	N.A.	OK	OK
6.4.51. If yes, is the typical debt/equity finance structure observed in the sector of the country used?	EB 62	Ann 05	N.A.	OK	OK
6.4.52. If such information is not readily available, 50% debt and 50% equity financing may be assumed as a default.	EB 62	Ann 05	N.A.	OK	OK





## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
6.4.53. Has an investment comparison analysis and not a benchmark analysis used when the proposed baseline scenario leaves the project participant no other choice than to make an investment to supply the same (or substitute) products or services?	EB 62	Ann 05	Yes.	OK	OK
6.4.54. Have variables, including the initial investment cost, that constitute more than 20% of either total project costs or total project revenues been subjected to reasonable variation (positive and negative) and the results of this variation been presented in the DD and be reproducible in the associated spreadsheets?	EB 62	Ann 05	No. Bureau Veritas considers that any variable contribute more than 20% and will not have a material impact on the analysis.	OK	OK
6.4.55. Have a corrective action been raised for a variable to be included in the sensitivity analysis which constitute less than 20% and have a material impact on the analysis ?	EB 62	Ann 05	N.A.	OK	OK
6.4.56. Is the range of variations selected is reasonable in the project context?	EB 62	Ann 05	N.A.	OK	OK
6.4.57. Does the variations in the sensitivity analysis at least cover a range of +10% and -10%, unless	EB 62	Ann 05	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
this is not deemed appropriate in the context of the specific project circumstances?					
6.4.58. In cases where a scenario will result in the project activity passing the benchmark or becoming the most financially attractive alternative, is an assessment done of the probability of the occurrence of this scenario in comparison to the likelihood of the assumptions in the presented investment analysis, taking into consideration correlations between the variables as well as the specific socio-economic and policy context of the project activity?	EB 62	Ann 05	N.A.	OK	OK
6.4.59. Was a thorough assessment of all parameters and assumptions used in calculating the relevant financial indicator, and determine the accuracy and suitability of these parameters using the available evidence and expertise in relevant accounting practices conducted?	VVM	111	Yes. The price of the CFL has been cross-checked the evidence provided by the PP. The price of the ICL has been determined during on-site visit by interviewing.	OK	OK
6.4.60. Were the parameters cross-checked against third-party or publicly available sources, such as invoices or price indices?	VVM	111	Yes. The price of CFL and ICL has been cross-checked with the market price.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
6.4.61. Were feasibility reports, public announcements and annual financial reports related to the proposed CPA and the project participants reviewed?	VVM	111	Yes. Board meeting minutes of the investment decision of the PoA and the specific CPA and the investment analysis have been reviewed.	OK	OK
6.4.62. Was the correctness of computations carried out and documented by the project participants assessed?	VVM	111	Yes.	OK	OK
6.4.63. Was the sensitivity analysis by the project participants to determine under what conditions variations in the result would occur, and the likelihood of these conditions assessed?	VVM	111	N.A.	OK	OK
6.4.64. Is the type of benchmark applied suitable for the type of financial indicator presented?	VVM	112	N.A.	OK	OK
6.4.65. Do any risk premiums applied determining the benchmark reflect the risks associated with the project type or activity?	VVM	112	N.A.	OK	OK
6.4.66. To determine this, was it assessed whether it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark by:	VVM	112	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
6.4.66.1. assessing previous investment decisions by the project participants involved?	VVM	112	N.A.	OK	OK
6.4.66.2. determining whether the same benchmark has been applied?	VVM	112	N.A.	OK	OK
6.4.66.3. determining if there are verifiable circumstances that have led to a change in the benchmark?	VVM	112	N.A.	OK	OK
6.4.67. Did the project participants rely on values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed CDM project activities?	VVM	113	No. The decision of the investment was made based on the financial analysis conducted by the Coordinating/Managing entity itself.	OK	OK
6.4.68. If yes:	VVM	113	N.A.	OK	OK
6.4.68.1. has the FSR been the basis of the decision to proceed with the investment in the project, i.e. that the period of time between the finalization of the FSR and the investment decision is sufficiently short for the DOE to confirm that it is unlikely in the context of the underlying project activity that the input values would have materially changed?	VVM	113	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
6.4.68.2. Are the values used in the PDD and associated annexes fully consistent with the FSR?	VVM	113	N.A.	OK	OK
6.4.68.3. If not, was the appropriateness of the values validated?	VVM	113	N.A.	OK	OK
6.4.68.4. On the basis of its specific local and sectoral expertise, is confirmation provided, by cross-checking or other appropriate manner, that the input values from the FSR are valid and applicable at the time of the investment decision?	VVM	113	N.A.	OK	OK
<b>6.5. Barrier analysis</b>	VVM	115-1 18			
6.5.1. Has barrier analysis been used to demonstrated the additionality of the proposed CPA?	VVM	115	N.A.	OK	OK
6.5.2. If yes, does the DD demonstrate that the proposed CPA faces barriers that:	VVM	115	N.A.	OK	OK
6.5.2.1. prevent the implementation of this type of proposed CPA?	VVM	115	N.A.	OK	OK
6.5.2.2. do not prevent the implementation of at least	VVM	115	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
one of the alternatives?					
6.5.3. Are there any issues that have a clear direct impact on the financial returns of the project activity, other than: risk related barriers, for example risk of technical failure, that could have negative effects on the financial performance; or barriers related to the unavailability of sources of finance for the project activity? {If yes, these issues cannot be considered barriers and shall be assessed by investment analysis.	VVM	116	N.A.	OK	OK
6.5.4. Were the barriers determined as real by:	VVM	117	N.A.	OK	OK
6.5.4.1. assssing the available evidence and/or undertaking interviews with relevant individuals (including members of industry associations, government officials or local experts if necessary) to determine whether the barriers listed in the PDD exist?	VVM	117	N.A.	OK	OK
6.5.4.2. ensuring that existence of barriers is substantiated by independent sources of data such as relevant national legislation, surveys of local conditions and national or international	VVM	117	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
statistics?					
6.5.4.3. Is existence of a barrier substantiated only by the opinions of the project participants? (If yes, this barrier cannot be considered as adequately substantiated)	VVM	117	N.A.	OK	OK
6.5.5. Were the barriers determined as preventing the implementation of the project activity but not the implementation of at least one of the possible alternatives by applying local and sectoral expertise to judge whether a barrier or set of barriers would prevent the implementation of the proposed CDM project activity and would not equally prevent implementation of <i>at least one of</i> the possible alternatives, in particular the identified baseline scenario?	VVM	117	N.A.	OK	OK
<b>7. Monitoring plan</b>	VVM	122-1 24			
7.1. Does the CPA DD include a monitoring plan?	VVM	122	Yes.	OK	OK
7.2. Is this monitoring plan based on the approved monitoring methodology applied?	VVM	122	Yes. This monitoring plan is based on AMS II.J Version 04.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
7.3. Were the list of parameters required by the the selected methodology identified?	VVM	123	Yes.	OK	OK
7.4. Does the monitoring plan contains all necessary parameters?	VVM	123	Yes. N: Sample size of monitoring survey LFR <sub>i,y</sub> : Ex post Lamp Failure Rate for CFL type i in year y (fraction) Date <sub>start</sub> and Date <sub>end</sub> : The start date and completion date of installation of CFLs Q <sub>BL,i</sub> : Number of each type of the replaced ICLs collected and destroyed Q <sub>PJ,i</sub> : Number of each type of CFLs in operation under the SSC-CPA P <sub>i,BL</sub> : Rated power of each type of the replaced ICLs P <sub>i,PJ</sub> : Rated power of each type of CFLs	OK	OK
7.5. Are the parameters clearly described?	VVM	123	Yes.	OK	OK
7.6. Does the means of monitoring described in the plan comply with the requirements of the methodology?	VVM	123			
7.6.1. During project activity implementation, are the following data to be recorded?	AMS II.J	Ver.4	Yes.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
7.6.1.1. Number of pieces of equipment distributed under the project activity, identified by the type of equipment and the date of supply	AMS II.J	Ver.4	Q <sub>PJ,i</sub> : Number of each type of CFLs in operation under the SSC-CPA Date <sub>start</sub> and Date <sub>end</sub> : The start date and completion date of installation of CFLs	OK	OK
7.6.1.2. The number and power of the replaced devices	AMS II.J	Ver.4	Yes. Q <sub>BL,i</sub> : Number of each type of the replaced ICLs collected and destroyed P <sub>i,BL</sub> : Rated power of each type of the replaced ICLs	OK	OK
7.6.1.3. Data to unambiguously identify the recipient of the equipment distributed under the CPA	AMS II.J	Ver.4	Yes.	OK	OK
7.6.2. Are the Emission Reductions are calculated <i>ex ante</i> and adjusted <i>ex post</i> following the monitoring surveys?	AMS II.J	Ver.4	<del>CL-20</del> <del>The design documents are silent about how to adjust the ex post calculated LFR<sub>i,y</sub> following the monitoring surveys.</del> CL-20 was closed out after the method to adjust the ex post calculated LFR <sub>i,y</sub> following the monitoring surveys. was included in Section E.7.1 of PoA DD and Section B.6.1 of CPA DD.	<del>CL-20</del>	OK
7.6.2.1. If Rated Average Life values were used initially for calculating LFR <sub>y</sub> , as soon as Average Life values are available they shall be used for	AMS II.J	Ver.4	<del>Pending on CL-15</del> The average life is available ex ante.	<del>Pending</del>	OK

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
calculation of subsequent year $LFR_{i,y}$ values.					
7.6.2.2. If the <i>ex post</i> monitoring surveys indicate that the failure rate is equal to or less than the $LFR_{i,y}$ value with <i>ex ante</i> or prior year, <i>ex post</i> monitoring values, for subsequent years $LFR_{i,y}$ shall continue to be determined using Equation and the established Average Life values for $L_i$ .	AMS II.J	Ver.4	No.	OK	OK
7.6.2.3. However, for subsequent years, $L_i$ values in $LFR_{i,y}$ equation shall be adjusted if the <i>ex post</i> monitoring surveys indicate that the failure rate ( $LFR_{i,y}$ ) is greater than the value indicated using equation with Average Life or prior year, <i>ex post</i> monitoring values. In this situation, a new value for $L_i$ shall be determined using equation and new values of $LFR_{i,y}$ shall be used beginning from the first calculation year after completion of the <i>ex post</i> survey.	AMS II.J	Ver.4	<del>Pending on CL-20</del> It was included in the revised design documents	<del>Pending</del>	OK
7.6.3. Does the project document contain the design details of the survey?	AMS II.J	Ver.4	Yes.	OK	OK
7.6.3.1. The sampling size is determined by minimum 90% confidence interval and the 10% maximum error margin; the size of the sample	AMS II.J	Ver.4	Yes.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
shall be no less than 100					
7.6.3.2. Sampling must be statistically robust and relevant i.e., the survey has a random distribution and is representative of target population (size, location)	AMS II.J	Ver.4	Yes.	OK	OK
7.6.3.3. The method to select respondents for interviews is random	AMS II.J	Ver.4	Yes.	OK	OK
7.6.3.4. The survey is conducted by site visits	AMS II.J	Ver.4	Yes.	OK	OK
7.6.3.5. <i>Only persons over age 12 are interviewed</i>	AMS II.J	Ver.4	Yes.	OK	OK
7.7. Are the monitoring arrangements described in the monitoring plan feasible within the project design?	VVM	123	Yes.	OK	OK
7.8. Are the following means of implementation of the monitoring plan sufficient to ensure that the emission reductions achieved by/resulting from the proposed CDM project activity can be reported ex post and verified:	VVM	123	Yes.	OK	OK
7.8.1. data management procedures?	VVM	123	Yes.	OK	OK
7.8.2. quality assurance procedures?	VVM	123	Yes.	OK	OK
7.8.3. quality control procedures?	VVM	123	Yes.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
<b>8. Local stakeholder consultation</b>	VVM	128-1 30			
<b>8.1.</b> Were local stakeholders (public, including individuals, groups or communities affected, of likely to be affected, by the proposed CDM project activity or actions leading to the implementation of such an activity) invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website?	VVM	128	<del>Pending on CL-13</del> The local stakeholders consultation was conducted from 18/11/2011 to 25/11/2011, prior to the publication of the design documents on the UNFCCC website on 21/01/2011	<del>Pending</del>	OK
<b>8.2.</b> Have comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity been invited?	VVM	129	Yes.	OK	OK
<b>8.3.</b> Is the summary of the comments received as provided in the PDD complete?	VVM	129	Yes.	OK	OK
<b>8.4.</b> Have the project participants taken due account of any comments received and described this process in the PDD?	VVM	129	Yes.	OK	OK
<b>9. Environment impacts</b>	VVM	131-1 33			
<b>9.1.</b> Have the project participants submitted	VVM	131	Yes.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
documentation on the analysis of the environmental impacts of the project activity?			The environmental impact caused by the PoA has been identified and analyzed in the PoA-DD.		
<b>9.2.</b> Have the project participants undertaken an analysis of environmental impacts?	VVM	132	Yes. There may be mercury contamination of soils and groundwater resources. All above impacts would be within an acceptable limit by implementing corresponding mitigation measures.	OK	OK
<b>9.3.</b> Does the host Party require an environmental impact assessment?	VVM	132	No.	OK	OK
<b>9.4.</b> If yes, have the project participants undertaken an environmental impact assessment?	VVM	132	N.A.	OK	OK
<b>10. Additional requirements to PoAs</b>					
<b>10.1. Additionality of PoA</b>	EB63	Ann2			
10.1.1. Is additionality demonstrated by establishing that in the absence of CDM, none of the implemented CPA would occur?	EB63	Ann2	<del>Pending on CL-4</del> There are no mandatory requirements in Jiangsu Province and in China requiring the use of energy efficient CFL at the household level. Without CDM, each CPA would get negative revenue. Thus in the absence of CDM, none of the implemented CPA would occur.	<del>Pending</del>	OK

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
10.1.2. If PoAs include one or more microscale projects as CPA, is eligibility criteria derived from all the relevant requirements of the “Guidelines for demonstrating additionality of micro project activities” included?	EB63	Ann2	N.A.	OK	OK
10.1.3. If PoAs include one or more microscale projects as CPA, is eligibility criteria derived from all the relevant requirements of Attachment A of Appendix B of the “Simplified modalities and procedures for small-scale CDM project activities” included?	EB63	Ann2	N.A.	OK	OK
10.1.4. If PoAs include one or more large-scale projects as CPA, is eligibility criteria derived from all the relevant requirements contained in the additionality section of the large-scale methodology(ies) included?	EB63	Ann2	N.A.	OK	OK
10.1.5. Has the CME demonstrated that compliance with the additionality-related eligibility criteria set in the PoA design document ensures that all the relevant additionality-related guidelines, tools or any requirements embedded in the methodology(ies) are met?	EB63	Ann2	<p><del>Pending on CL-8</del></p> <p>Yes.</p> <p>Compliance with the additionality-related eligibility criteria set in the PoA design document ensures has been demonstrated.</p>	<del>Pending</del>	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
10.1.6. Has the CME documented the compliance with the eligibility criteria in each of the CPA design documents?	EB63	Ann2	<del>Pending on CL-8</del> Yes. Compliance with the eligibility in the specific CPA has been documented.	<del>Pending</del>	OK
10.1.7. For PoAs involving combinations of technologies/measures and/or methodologies, is the eligibility criteria relative to each of them proposed to demonstrate additionality?	EB63	Ann2	N.A.	OK	OK
<b>10.2. Management system of CME</b>	<b>EB63</b>	<b>Ann3</b>			
10.2.1. Is clear definition of roles and responsibilities of personnel in the process of inclusion of CPAs, including a review of their competencies made available to the DOE at the time of validation of the PoA?	EB63	Ann3	Yes. Clear definition of roles and responsibilities of personnel in the process of inclusion of CPAs has been included in CME's internal procedure, which has been verified by validation team during on-site visit.	OK	OK
10.2.2. Have records of arrangements for training and capacity development for personnel been made available to the DOE at the time of validation of the PoA?	EB63	Ann3	Yes. Records of arrangements for training and capacity development for personnel have been made available.	OK	OK
10.2.3. Have procedures for technical review of inclusion of CPAs been made available to the	EB63	Ann3	Yes.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
DOE at the time of validation of PoA.					
10.2.4. Is a procedure to avoid double counting available?	EB63	Ann3	<del>Pending on CL-5</del> Yes. A procedure to avoid double counting has been made available and verified by validation team	<del>Pending</del>	OK
10.2.5. Have records and documentation control process for each CPA under the PoA been made available to the DOE at the time of request for inclusion of the CPA?	EB63	Ann3	Yes.	OK	OK
10.2.6. Have measures for continual improvements of the PoA management been made available to the DOE at the time of validation of the PoA?	EB63	Ann3	Yes.	OK	OK
10.2.7. Are any other relevant elements available?	EB63	Ann3	Yes.	OK	OK
<b>10.3. Eligibility criteria</b>	<b>EB63</b>	<b>Ann3</b>			
10.3.1. Is the geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA?	EB63	Ann3	<del>Pending on CL-12</del> Yes. The geographical boundary of the CPA is included within the geographical boundary set in the PoA.	<del>Pending</del>	OK
10.3.2. Are conditions that avoid double counting of emission reductions like unique identifications of	EB63	Ann3	<del>Pending on CL-5 and CL-16</del>	<del>Pending</del>	OK





## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
product and end-user locations available?			Yes.		
10.3.3. Do the specifications of technology/measure include the level and type of service? Do performance specifications include compliance with testing/certifications.	EB63	Ann3	<del>Pending on CL 14 and CL 15</del> Yes.	<del>Pending</del>	OK
10.3.4. Are conditions to check the start date of the CPA through documentary evidence included?	EB63	Ann3	Yes.	OK	OK
10.3.5. Are conditions that ensure compliance with applicability and other requirements of single or multiple methodology(ies) applied by CPAs included?	EB63	Ann3	<del>Pending on CL 14, CL 15, CL 16 and CL 17</del> Yes.	<del>Pending</del>	OK
10.3.6. Are the conditions that ensure that CPAs meet the requirements pertaining to the demonstration of additionality included?	EB63	Ann3	<del>Pending on CL 8</del> Yes.	<del>Pending</del>	OK
10.3.7. Do the PoA-specific requirements stipulated by the CMEs include any conditions related to undertaking local stakeholder consultations and environmental impact analysis?	EB63	Ann3	Yes.	OK	OK
10.3.8. Where applicable, are target group(e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution	EB63	Ann3	Yes.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
mechanisms(e.g. direct installation) available?					
10.3.9. Where applicable, are the conditions related to sampling requirements for a PoA in accordance with the approved guidelines/standard from the Board pertaining to sampling and surveys included?	EB63	Ann3	<del>CL-21</del> Sampling requirements for PoA are not included in the eligibility criteria. CL-21 was closed out after the sampling requirements for PoA were included in the eligibility.	<del>CL-21</del>	OK
10.3.10. Where applicable, are the conditions that ensure that CPA in aggregate meets the small-scale or micro-scale threshold criteria (please refer to the latest approved version of the .Guidelines for demonstrating additionality of microscale project activities. and the latest approved version of the .General Guidelines to SSC CDM methodologies) and remain within those thresholds throughout the crediting period of the CPA available?	EB63	Ann3	Yes.	OK	OK
10.3.11. Where applicable, are the requirements for the debundling check available, in case CPAs belong to small-scale(SSC) or microscale project categories(please refer to the latest approved version of the "Guidelines on assessment of	EB63	Ann3	<del>Pending on CL-6</del> Yes.	<del>Pending</del>	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
debundling for SSC project activities")?					
10.3.12. Are conditions to provide an affirmation that funding from Annex I parties provided, if any, does not result in a diversion of official development assistance?	EB63	Ann3	<p><del>CL-22</del></p> <p>It is not included in the eligibility criteria that whether ODA is relevant with the CPA.</p> <p>CL-22 was closed out after the eligibility criteria includes the information of ODA.</p>	<del>CL-22</del>	OK
<b>10.4. Multiple CDM methodologies for a PoA</b>					
10.4.1. Has the CME listed in the PoA-DD and the generic CPA-DD various combinations of technologies/measures and /or approved methodologies that will be implemented in the PoA?	EB63	Ann4	N.A.	OK	OK
10.4.2. If a CPA uses technologies/measures from several methodologies, is it in compliance with all the eligibility criteria derived from the requirements of all the methodologies? Are these eligibility criteria identified in the validated PoA-DD?	EB63	Ann4	N.A.	OK	OK
10.4.3. For multiple small-scale(SSC) CDM methodologies, is demonstrated that there are no cross effects between the	EB63	Ann4	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
technology(ies)/measures applied? Where such cross effects do exist, Has CME proposed methods to account for such cross effects using the .Procedures for requests to the executive board for deviation from an approved methodology. so as to ensure that the calculation of emission reductions is accurate?					
10.4.4. For multiple small-scale(SSC) CDM methodologies, are the following situations for applying combinations of technologies/measures and/or methodologies eligible?	EB63	Ann4	N.A.	OK	OK
10.4.4.1. The same combination of technologies/measures under the same combination of methodologies applied consistently in each and every CPA of a PoA.	EB63	Ann4	N.A.	OK	OK
10.4.4.2. A single methodology is consistently applied in each CPA of a PoA but using multiple technology(ies)/measures.	EB63	Ann4	N.A.	OK	OK
10.4.4.3. A principle technology/measure is applied consistently in each CPA using multiple combinations of methodologies.	EB63	Ann4	N.A.	OK	OK



## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
10.4.4.4. Combinations of technologies/measures and methodologies vary across CPAs of a PoA, i.e. the policy or goal can only be realized through the use of multiple and disparate methodologies. Therefore in such situations the CME shall demonstrate that the implementation of the activities is integrated through the design of the programme.	EB63	Ann4	N.A.	OK	OK
10.4.5. It the compliance with the SSC threshold of a CPA shall be met by following the guideline in paragraph 3 of the .General Guidelines to SSC CDM methodologies?	EB63	Ann4	N.A.	OK	OK
10.4.6. For multiple large-scale CDM methodologies or combination of multiple large- and small –scale CDM methodologies, are combinations permitted in the methodologies? If not, has the CMEs sought a clarification by following the . Procedure for the submission and consideration of queries regarding the application of approved methodologies and methodological tools by designated operational entities to the Meth Panel.7 (EB 42, annex 9) for	EB63	Ann4	N.A.	OK	OK

## VALIDATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
the eligibility of the proposed combination?					

TABLE 2 RESOLUTION OF CORRECTIVE ACTION AND CLARIFICATION REQUESTS

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project owner response	Validation team conclusion
CAR-1: LoA from China has not been provided.	1.1	LoA from China has been provided to DOE.	LoA from China has been provided by the PP and verified by Bureau Veritas Certification. Hence CAR-1 is closed.
CAR-2: MoC has not been provided.	2.8	MoC has been provided to DOE.	MoC of the PoA has been provided and verified. Hence CAR-2 is closed.

## VALIDATION REPORT

CAR-3: The emission factor indicated in Section B.5 of the specific CPA-DD is not consistent with that in Annex 3.	4.15	The emission factor is 0.76907 tCO <sub>2</sub> e/MWh. The value has been corrected. Please refer to the updated DD and ER calculation spreadsheet.	Bureau Veritas Certification has checked the ER calculation spreadsheet and confirms that the emission factor is correctly calculated. It has been used throughout the design documents. Hence CAR-3 is closed.
CL-1: Clarification is required on policy/measure or stated goal of the PoA	3.2.2	As described in section A.2 of PoA-DD, the stated goal of the PoA is to distribute around 50 million CFLs, replacing low efficient ICLs, mainly covering the rural area of Jiangsu Province and to reduce the electricity consumed by local residents, in order to reduce corresponding CO <sub>2</sub> emissions during power generation.	Stated goal of the PoA was clearly specified in Section A.2 of PoA-DD. Hence CL-1 is closed.

## VALIDATION REPORT

CL-2: Clarification is required on the detailed technology/measures to be employed by the SSC-CPA.	3.5.1	As described in Section A.4.2.1 of PoA-DD, the SSC-CPA under the programme is to distribute high efficient CFLs, replacing equal amount of ICLs being used by residents. Each CFL, with lower power, will provide the lumen output, which is equal or higher than that of the ICL. The average life of each CFL will be longer than 6000 hours. The aggregate electricity savings by one SSC-CPA won't exceed the equivalent of 60 GWh per year. In addition, the CFLs distributed in the project will be made in China	The detailed technology/measures to be employed by the SSC-PPA have been included in Section A.4.2.1 of the PoA-DD and are consistent with the applied methodology. Hence CL-2 is closed.
CL-3: Clarification is required on whether the additionality was demonstrated at CPA level or PoA level.	3.6.2	As described in section E.5.1 of PoA-DD, a full additionality assessment is done at PoA level, while the confirmation of additionality for CPAs should be conducted by means of the eligibility criteria. In particular, the additionality of CPA can be confirmed, if its NPV is negative compared with the baseline scenario.	The additionality assessment has been done at PoA level with the eligibility criteria for the additionality of CPAs. The eligibility criteria for the additionality of CPAs is that the NPV of the project scenario is negative compared with that of the baseline scenario. It is consistent with EB60 Annex26. Hence CL-3 is closed.





## VALIDATION REPORT

<p>CL-4: The PoA-DD is silent about whether the PoA is implementing a mandatory policy/regulation.</p>	<p>3.6.3</p>	<p>There are no mandatory requirements in Jiangsu Province and in China requiring the use of energy efficient CFL at the household level. Although a notification of “The Provisional Measures of Financial Subsidy for Promoting Efficient Lighting Equipment” was jointly published by NDRC and Ministry of Finance in 2007. Due to this measurement, a certain amount of efficient lighting equipment was promoted with government subsidy in the past three years; however, the promotion was limited in major cities of China and small proportion was promoted in mass rural areas. Please check the detail in Section A.2 of PoA-DD.</p>	<p>Bureau Veritas Certification has checked the evidence provided by the PP and concludes that there are no mandatory requirements for the use of energy efficient CFL at household. This can be also confirmed by Bureau Veritas Certification’s local sector expertise.</p> <p>The description about relevant policy/regulation has been included in Section A.2 of PoA-DD.</p> <p>Hence CL-4 is closed.</p>
--	--------------	---	--

## VALIDATION REPORT

<p>CL-5: PoA DD is silent about “Project 3659:Qiangling CFL Distribution Project”, which has been registered as a CDM project within the defined geographic area of the PoA. Clarification is required on the system/procedure to avoid double accounting.</p>	<p>3.7.2</p>	<p>As described in section A.4.1.2 of PoA-DD, Lianshui County covered by the CDM project 3659, which is the only CFL distribution project in Jiangsu Province until now, shall be excluded from the defined geographic area of the proposed PoA. It can be easily to exclude Lianshui County, due to there is clear political boundary between it and its neighbour county or district.</p> <p>Till now, no other PoA with the same measures/technology has been registered in China.</p> <p>Furthermore, procedures to eliminate double counting of emission reductions have been included in Section A.4.4.1 of PoA-DD.</p>	<p>The geographic area of “Project 3659:Qiangling CFL Distribution Project” has been excluded from the boundary of the PoA.</p> <p>Procedures to eliminate double counting of emission reductions have been included in the PoA-DD. Hence CL-5 is closed.</p>
--	--------------	---	---

## VALIDATION REPORT

<p>CL-6: Clarification is required on how to confirm that the maximum wattage rating of an ICL will be no more than 200W at PoA level.</p>	<p>3.7.3</p>	<p>If each of the independent subsystems/measures (e.g., biogas digester, solar home system) included in the CPA of a PoA is no larger than 1% of the small-scale thresholds defined by the methodology applied, then that CPA of PoA is exempted from performing de-bundling check i.e., considering as not being a de-bundled component of a large scale activity.</p> <p>As per de-bundling criteria, 1% of the small scale threshold is 0.6 GWh per year for a single measure,. Hence the maximum annual saved electricity of each distribution of a CFL is used for de-bundling check at CPA level. If the maximum annual saved electricity of each distribution of a CFL is less than 0.6GWh per year, the SSC-CPA is not a de-bundled component of a large scale activity.</p>	<p>The procedure for de-bundling check has been available. the maximum annual saved electricity of each distribution of a CFL is used for de-bundling check at CPA level. If the maximum annual saved electricity of each distribution of a CFL is less than 0.6GWh per year, the SSC-CPA is not a de-bundled component of a large scale activity. It is consistent with EB54 Annex13.</p> <p>Hence CL-6 is closed.</p>
--	--------------	---	---

## VALIDATION REPORT

CL-7: Clarification is required on completeness of the ex post monitoring survey.	3.8.1	<p>The ex post monitoring survey has been updated.</p> <p>The information on AMS II.J Version04 paragraph 17 has been added. And Parameter value to be monitored shall be estimated by sampling in accordance with the requirements in the applied methodology (applying 90/ 10 confidence/precision for the sample size calculation) separately and independently for each of the CPAs included in this PoA except when a single sampling plan covering a group of CPAs is undertaken applying 95/ 10 confidence/precision for the sample size calculation.</p> <p>Please refer to section A.4.4.2 of the revised PoA-DD for detail.</p>	<p>The ex post monitoring survey has been updated and is consistent with AMS II.J Version04 and EB65 Annex 02.</p> <p>Hence CL-7 is closed.</p>
---	-------	---	---

## VALIDATION REPORT

CL-8: CDM-SSC-PoA-DD section E.5.1 is silent about assessment and demonstration of additionality for a typical SSC-CPA	3.23	<p>As clarification in annex 26 of EB60 meeting report, a full additionality assessment is not required in the context of component project activities (CPA), rather the confirmation of additionality for CPAs should be conducted by means of the eligibility criteria. Thus in section E.5 of PoA-DD, an eligibility criteria is set, which requires that the CPA project NPV is negative without CDM revenues compared with that of the base line scenario. And the start date of the CPA is 01/03/2011(the date when the purchase agreement was signed), later than 19/01/2011, the commencement of validation of the PoA.</p> <p>Please refer to section E.5 of PoA-DD for detail.</p>	<p>Bureau Veritas Certification has checked the NPV calculation spreadsheet and confirms that the NPV of the CPA is negative without CDM revenues, which is consistent with the eligibility criteria for the additionality of CPAs set in PoA-DD.</p> <p>During on-site visit, Bureau Veritas Certification can confirm that the CPA has not start via observation and interview.</p> <p>Bureau Veritas Certification has checked the CFLs purchase agreement signed between the PP and the manufacturer, and confirms that the start date of the CPA is 01/03/2011, later than 19/01/2011, the commencement of validation of the PoA. It is consistent with the eligibility criteria for prior consideration in the PoA-DD.</p> <p>Hence CL-8 is closed.</p>
--	------	--	---

## VALIDATION REPORT

CL-9: The survey principles are silent about the design details of the survey which is required by the applied methodology	3.29	The design details of the survey were included in the survey principles. Please refer to Section E.7.2 of PoA DD.	The design details of the survey was included in the survey principles. Hence CL-9 is closed.
CL-10: Section A.4.1 of the specific CPA DD is silent about the Name/contact details of the entity/individual responsible for the operation of the CPA	4.4.3	Zhenjiang Qiangling Energy-saving Light Source Co., Ltd. /aurora.8513@hotmail.com is responsible for the CPA. It has been specified in Section A.4.1 of the specific CPA DD.	The name of the entity responsible for the CPA has been included in the CPA DD. Hence CL-10 is closed.
CL-11: Specific-CPA-DD is silent about the length of the crediting period.	4.6.2	The length of the crediting period is 7 years and 302 days as described in section A.4.3.2 of specific CPA-DD.	The crediting period of 7 years and 302 days has been included in the specific CPA-DD. Hence CL-11 is closed.
CL-12: Section B.4 of specific CPA DD is silent about the proof that the small-scale CPA is located within the geographical boundary of the PoA.	4.14.2	Chuzhou district, the area covered by the proposed small-scale CPA, is located within the geographical boundary of the PoA. This could be proved by the political boundary of Jiangsu Province. Please check the detail in section B.4 of specific CPA DD.	It has been demonstrated that the specific CPA is located within the geographical boundary of the PoA. Hence CL-12 is closed.

## VALIDATION REPORT

CL-13: Specific CPA-DD is silent about the number of the questionnaires and when local stakeholder comments were invited and the meeting was held.	4.23	<p>A stakeholder consultation meeting was carried out on 18 /11/2010 and 50 questionnaires survey were made among the local stakeholders in Chuzhou District from 18/11/2010 to 30/11/2010.</p> <p>Please check the detail in section D.3 of specific CPA DD.</p>	<p>Bureau Veritas Certification has checked the provided evidence about local stakeholder comments and confirms that the meeting was held on 18/11/2010 and consultation was conducted from 18/11/2010 to 30/11/2010 and 50 questionnaires were distributed and collected. The relevant description has been included in Section D.3 of the specific CPA-DD.</p> <p>Hence CL-13 is closed.</p>
--	------	---	--

## VALIDATION REPORT

CL-14: Specific CPA-DD is silent about  
silent about the lumen output of the  
CFLs and ICLs.

5.2.4.4

According to the complying status of CPA eligibility criteria presented in section B.2 of specific CPA DD, the lumen output of project CFLs are greater than or equal to that of the ICL exchanged and the eligible wattage of project CFL is much lower than that of the ICLs. The lumen output and wattage of the CFLs and ICLs are listed as below:

CFLs		ICLs	
wattage	Lumen output	wattage	Lumen output
12W	760lumens	40W	415lumens
		60W	715lumens
22W	1,450lumens	100W	1,350lumens

The test report has been provided to DOE.

The distribution plan has been added in Section A.2 of the specific CPA DD. Compared to the ICLs to be exchanged, the CFLs to be distributed have larger lumen output and lower rate power.

The test reports of the CFLs to be distributed have been provided by the PP and verified by Bureau Veritas Certification.

Hence CL-14 is closed.



## VALIDATION REPORT

CL-15: Clarification is required on whether the average life value is available ex ante.	5.2.4.9	The average life value is available ex ante. As per Test Reports of Eco Design Requirements for Non-Directional Household Lamps issued by Aurora International Testing Laboratory dated 25/04/2011 and 05/05/2011, the average life was determined to be 10,000h based on the international standard IEC60969. The description of the life value of the CLF has been updated.	The testing reports have been provided and verified. And Bureau Veritas Certification is able to confirm that the average life is determined ex ante and the value is 10,000h. Hence CL-15 is closed.
CL-16: The specific CPA DD is silent about how the proposed procedures eliminate double counting of Emission Reductions at the CPA level.	5.2.4.12	To eliminate double counting, a purchase agreement with the manufacturer and an agreement has been signed. A purchase agreement with project residents shall be signed in CPA implementation. According to the agreements, the emission reduction is only employed by the PoA C/M (Qiangling Energy Saving Light Source Co., Ltd) and all rights about emission reductions are given up by the manufacturer and project residents.	Both the manufacturer and the participating residents will give up the emission reductions. The purchase agreement with the manufacturer has been provided and verified. A purchase agreement with project residents will be signed in CPA implementation. Hence CL-16 is closed.

## VALIDATION REPORT

<p>CL-17: Specific CPA DD is silent about whether these actions include educating the CFL recipients of the best uses for CFLs not directly installed.</p>	<p>5.2.4.14</p>	<p>As described in section A.2 of the specific CPA DD, the distribution of CFLs and replacement of previously used ICLs in households in the SSC-CPA area can take place using one or more of the following methods:</p> <p>(1) Direct installation at each household; and/or</p> <p>(2) ICL collection and CFL distribution through dedicated distribution points e.g. resident association offices, schools etc.</p> <p>Where direct installation is not done, SSC-CPA shall educate the recipient to install the CFL in high-usage areas. The methods of this education could include posters, printed hand-outs, verbal explanation by SSC-CPA representatives etc. Evidence for this shall be provided by SSC-CPA.</p>	<p>The actions including educating the CFL recipients of the best uses for CFLs not directly installed have been included in Section A.2 of the specific CPA-DD.</p> <p>Hence CL-17 is closed.</p>
--	-----------------	---	--

## VALIDATION REPORT

CL-18: Clarification is required on the methods of the identification of the baseline scenario.	5.4.4	A random sampling investigation was conducted in Chuzhou district, which presented the following results: ICL is the main lighting product being used by local residents; There are three types of ICL being used. In particular, 40W and 60W ICL account for 95%, while 100W ICL has only 5% of total amount of ICL investigated.	Bureau Veritas Certification has checked the result of the random sampling investigation for the CPA and concludes that the baseline scenario was correctly identified. Hence CL-18 is closed.
CL-19: Clarification is required on whether the steps for emission reductions calculation indicated in AMS II.J. Version 4 are applied.	5.5.1	The steps for emission reductions calculation indicated in AMS-II.J Version 04 are applied. Please refer to section B.5.2 of CPA-DD for detail.	The steps for emission reductions calculation in AMS-II.J Version 04 have been used in Section B.5.2 of the specific CPA-DD. Hence CL-19 is closed.

## VALIDATION REPORT

<p>CL-20: The design documents are silent about how to adjust the ex post calculated <math>LFR_{i,y}</math> following the monitoring surveys.</p>	<p>7.6.2</p>	<p>The Net Electricity Savings shall be modified for changes to the Lamp Failure Rate as may be indicated by ex post monitoring survey results and/or on the basis of CFL Average Life values if a CFL Rated Average Life was used initially.</p> <p>If Rated Average Life values were used initially for calculating <math>LFR_y</math>, per equation(4) in section E.6.2, as soon as Average Life values are available they shall be used for calculation of subsequent year <math>LFR_{i,y}</math> values.</p> <p>If the ex-post monitoring surveys indicate that the failure rate is equal to or less than the <math>LFR_{i,y}</math> value indicated using equation(4) in section E.6.2 with ex-ante or prior year, ex-post monitoring values, for subsequent years <math>LFR_{i,y}</math> shall continue to be determined using Equation (4) in section E.6.2 and the established Average Life values for Li. However, for subsequent years, Li values in <math>LFR_{i,y}</math> equation (4) in section E.6.2 shall be adjusted if the ex-post monitoring surveys indicate that the failure rate (<math>LFR_{i,y}</math>) is greater than the value indicated using equation (4) in section E.6.2 with Average Life or prior year, ex-post monitoring values. In this situation, a new value for Li shall be determined using equation (4) in section E.6.2 and new values of <math>LFR_{i,y}</math> shall be used beginning from the first calculation year after completion of the ex-post survey.</p>	<p>The method to adjust the ex post calculated <math>LFR_{i,y}</math> following the monitoring surveys. was included in Section E.7.1 of P oA D D and Section B.6.1 of CPA DD.</p> <p>Hence CL-20 is closed.</p>
---	--------------	---	--

## VALIDATION REPORT

CL-21: Sampling requirements for PoA are not included in the eligibility criteria.	10.3.9	Sampling plan should be described in each CPA and consistent with the latest standard or guideline for sampling survey. The criteria has been added in the eligibility criteria.	Sampling requirements for PoA have been included in the eligibility criteria. Hence CL-21 is closed.
CL-22: It is not included in the eligibility criteria that whether ODA is relevant with the CPA	10.3.12	Confirmation that no funding from Annex I parties; if any, does not result in a diversion of official development assistance The criteria has been added in the eligibility criteria.	Whether ODA is relevant with the CPA has been included in the eligibility criteria. Hence CL-22 is closed.