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Validation Report

BUREAU OF ENERGY EFFICIENCY
VALIDATION OF THE CDM-POA:
CFL LIGHTING SCHEME – “BACHAT LAMP YOJANA”

REPORT NO. 1360704

25 March 2010

TÜV SÜD Industrie Service GmbH
Carbon Management Service
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Project Participant: Bureau of Energy Efficiency (Managing Entity) 4th Floor, Sewa Bhavan, Sector 1 R.K. Puram New Delhi - 110066	
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Assessment Team Leader: Bratin Roy Assessment Team Members: Sandeep Kanda Stephan Hild V. Vijayanand	Responsible Certification Body Member: Thomas Kleiser



Summary of the PoA Validation Opinion:

- The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence for the determination of the PoA's fulfilment of all stated criteria. In our opinion, the PoA meets all relevant UNFCCC requirements for the CDM. Therefore, TÜV SÜD recommends the PoA for registration by the CDM Executive Board.
- The review of the project design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence for the determination of the PoA's fulfilment of all stated criteria. Therefore, TÜV SÜD will not recommend the PoA for registration by the CDM Executive Board and will inform the project participants and the CDM Executive Board of this decision.

Abbreviations

AMS	Approved Methodology Small scale
BEE	Bureau of Energy Efficiency
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER	Certified Emission Reduction
CM	Combined Margin
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
CPA	CDM Programme activity
CPA-DD	CDM Programme Activity Design Document
CR / CL	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission Reduction
FAR	Forward Action Request
GHG	GreenHouse Gas(es)
IPCC	Intergovernmental Panel on Climate Change
IRL	Information Reference List
KP	Kyoto Protocol
MP	Monitoring Plan
NGO	Non Governmental Organisation
NPV	Net Present Value
OM	Operational Margin
PDD	Project Design Document
PoA	Programme of Activities
PoA-DD	Programme of activities design document
PP	Project Participant
TÜV SÜD	TÜV SÜD Industrie Service GmbH
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

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1 INTRODUCTION

1.1 Objective

The objective of the validation process is to provide an independent assessment by a third party, a Designated Operational Entity (DOE), of the proposed Programme of Activities (PoA) and the CDM Programme Activity (CPA) template with generic information applicable to all CPAs under that PoA and the associated real case CPA-DD.

The assessment involves the evaluation of the PoA basis and design identified in the PoA Design Document (PoA-DD), template CPA design document (CPA-DD) and the associated real case CPA-DD using the defined criteria outlined by the registration under the Clean Development Mechanism (CDM). Validation is part of the CDM project cycle and results in a conclusion by the executing DOE on whether or not a PoA is valid to be submitted for registration to the CDM Executive Board (CDM-EB). The ultimate decision on the registration of a proposed PoA rests with the CDM-EB and the Parties involved.

The PoA addressed in this validation report has been submitted under the following title:

CFL lighting scheme – “Bachat Lamp Yojana”

1.2 Scope

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. In the case of CDM PoA, the scope is set by:

- The Kyoto Protocol, in particular § 12 and modalities and procedures for the CDM
- Decision 2/CMP1 and Decision 3/CMP.1 (Marrakech Accords)
- Further COP/MOP decisions with reference to the CDM (e.g. decisions 4 – 8/CMP.1)
- Decisions and specific guidance outlined by the EB which are published under <http://cdm.unfccc.int>
- Guidelines for Completing the PoA Design Document (PoA-PDD), CDM programme of activities template and design document (CPA-DD) and the applied CDM methodology including the sections especially dedicated to PoA
- Procedures for registration of a Programme of Activities, Version 3 (Annex 29 of EB47)
- Baselines and monitoring methodologies
- Management systems and auditing methods
- Environmental issues relevant to the applicable sectoral scope
- Applicable environmental and social impacts and aspects of CDM project activity
- Sector specific technologies and their applications
- Current technical and operational knowledge of the specific sectoral scope and information on best practice

The validation process is not meant to provide any form of consulting for the PoA Managing Entity, CPA Implementer(s) and/or project participant(s) (PP). However, stated requests for clarifications, corrective actions, and/or forward actions may provide input for improvement of the project design.



Once TÜV SÜD receives the PoA-DD and supporting CPA template and completed CPA-DD of the real case, it is made publicly available on the UNFCCC website and on TÜV SÜD’s website, which initiates a 30 day global stakeholder consultation process (GSP). In special circumstances, such as when a PoA design changes, the GSP may need to be repeated. Information on the PoA-DD is presented on page 1 of this report.

The purpose of validation is to demonstrate compliance or non-compliance of the PoA with all stated and valid UNFCCC and host party requirements. Additionally, the purpose of validation is to enable the registration of PoA, which is only a part of the total CDM project cycle. Therefore, TÜV SÜD cannot be held liable by any party for decisions made, or not made, based on the validation opinion that go beyond this purpose.

2 METHODOLOGY

The PoA assessment is based on the “Clean Development Mechanism Validation and Verification Manual” version 1.1 and is conducted using standard auditing techniques to assess the correctness of the information provided by the project participants. Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the CDM PoA are appointed. Once the project documents are made available for the stakeholder consultation process, members of the team carry out the desk review, follow-up actions, resolution of issues identified, and the preparation of the validation report. The prepared validation report and other supporting documents then undergo an internal quality control by the CB “Climate and Energy” before being submitted to the CDM-EB.

In order to ensure transparency, assumptions must be clear and stated explicitly and background material must also be referenced. TÜV SÜD has developed a methodology-specific protocol customized for the PoA. The protocol demonstrates, in a transparent manner, the PoA criteria (requirements), discussion on each criterion by the assessment team, and the results from validating the identified criteria.

The validation protocol serves the following purposes:

- To organize the details and provision of clarifications on the requirements of which a CDM-PoA and its CPA-DD are expected to meet
- To elucidate how a particular requirement has been validated as well as to document the results of the validation and any adjustments made to the PoA-DD.

The validation protocol consists of three tables. The different columns in these tables are described in the tables below.

Validation Protocol Table 1: Conformity of CDM Programme of Activities				
Checklist Topic / Question	Reference	Comments	GSP	Final
<i>The checklist is organised in sections following the arrangement of the applied PoA-DD version. Each section is then subdivided. The lowest level constitutes a checklist question / criterion.</i>	<i>The section gives reference to documents in which the answer to the checklist question or item is found in case the comment refers to documents other than the PoA-DD.</i>	<i>The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is used to explain the conclusions reached. In some cases sub-checklists are applied indicating yes/no decisions on the compliance with the stated criterion. Any Request has to be substantiated within this column.</i>	<i>The section is used to present conclusions based on the assessment of the first PoA-DD version. The PoA-DD is either acceptable based on evidence provided (☑) or a Corrective Action Request (CAR) is issued due to non-compliance with the checklist question (See below). Clarification Request (CR) is used when the validation team has identified a need for further clarification. Forward Action Request is issued to highlight issues related to project implementation that require review during the first verification.</i>	<i>Conclusions are presented in the same manner based on the assessment of the final PoA-DD version and further documents including assumptions presented in the documentation.</i>

Validation Protocol Table 2: Resolution of Clarification and Corrective Action Requests			
Clarifications and corrective action requests	Ref. to table 1	Summary of project owner response	Validation team conclusion
<i>If the conclusions from table 1 are either a Corrective Action, a Clarification or a Forward action Request, these should be listed in this section.</i>	<i>Reference to the checklist question number in Table 1 where the issue is explained.</i>	<i>The responses given by the managing entity and/or other project participants during the communications with the validation team should be summarised in this section.</i>	<i>This section should summarise the discussion on and revision to project documentation together with the validation team’s responses and final conclusions. The conclusions should be reflected in Table 1, under “Final”.</i>

In case of a denial of the PoA detailed information on this decision will be presented in Table 3.

Validation Protocol Table 3: Unresolved Corrective Action and Clarification Requests		
Clarifications and corrective action requests	Id. of CAR/CR	Explanation of the Conclusion for Denial
<i>Referenced request if final conclusions from table 2 resulted in a denial.</i>	<i>Identifier of the Request.</i>	<i>Detailed explanation of why the PoA is considered non-compliant with a criterion and a clear reference to the criterion</i>

The completed validation protocol is enclosed in Annex 1.

2.1 Appointment of the Assessment Team

According to the technical scopes and experiences in the sectoral or national business environment, TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body “Climate and Energy”.

The composition of an assessment team has to be approved by the Certification Body (CB) to assure that the required skills are covered by the team. The CB TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Auditor (GHG-A)
- Greenhouse Gas Auditor Trainee (T)
- Experts (E)

It is required that the sectoral scope(s) and the technical area(s) linked to the methodology and project have to be covered by the assessment team.

The validation team was consisting of the following experts:

Name	Qualification	Coverage of sectoral scope	Coverage of technical area	Host country experience
Bratin Roy	ATL	☑	☑	☑
Sandeep Kanda	GHG-A	☑	☑	☑
Stephan Hild	T	-	-	-
V. Vijayanand	T	-	-	☑



Bratin Roy is an Assessment Team Leader for CDM/JI projects for CDM/JI projects and also a lead auditor for quality and environmental management systems (according to ISO 9001 and ISO 14001). He holds a Master Degree in Environmental Science. Mr. Roy has worked for 10 years as a consultant in the field of energy industries, renewable and non-renewable sources, and energy distribution equipment, especially biomass and solar energy. He has presented several papers related to climate change, energy efficiency and corporate sustainability in various national and international seminars and workshops. He has received extensive training in the CDM and JI validation and verification processes and has already participated in several CDM/JI project assessments.

Sandeep Kanda is a GHG auditor for CDM/JI projects and energy and environment field expert at TÜV SÜD Industrie Service GmbH. He holds a master degree in energy systems engineering, post graduate diploma in industrial safety and environmental management and bachelors' degree in mechanical engineering. Before joining the TÜV SÜD Industrie Service GmbH he has worked extensively as a consultant on projects in energy sector, manufacturing industries, chemical industries and metal production. He has carried out energy audits and worked on development of CDM projects and methodologies for various projects in the aforementioned sectors.

Stephan Hild is Head of Sales at TÜV SÜD Carbon Management Services, based in the Munich Headquarters. In this position he is responsible for the contractual relationships with project participants regarding climate change projects as well as customer communication and marketing. In addition to his administrative responsibilities he is acting as focal point for PoAs. Stephan holds degrees both in economics and environmental sciences, having specialized in his research on the economics and politics of climate change since 2005. Prior to his studies he has had sixteen years of experience in sales, marketing and international management.

V. Vijayanand is a Trainee Auditor at TÜV SÜD South Asia. He holds a Masters degree in Environmental Management and Graduation in Environment & Water Management. Before joining TÜV SÜD South Asia, he worked on CDM projects in a consultancy firm for couple of years and was involved in successful registration of several projects. He has received extensive training on CDM validation and verification process.

2.2 Review of Documents

The PoA-DD and completed CPA-DD for the GSP was submitted to the DOE in July 2009. The additional background documents related to the PoA design and baseline have been reviewed to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources has been done as an initial step of the validation process. A complete list of all documents and evidence material reviewed is attached as Annex 2 to this report.

2.3 Follow-up Interviews

During the period 26-08-2009 to 29-08-2009 and subsequently on 29-09-2009 and 30-09-2009, TÜV SÜD performed interviews and physical site inspections with project stakeholders to confirm relevant information, and to resolve issues identified in the document review. The following table provides a list of all key persons interviewed in this process.

Name	Organisation
Ajay Mathur	Director General, Bureau of Energy Efficiency (BEE)
Saurabh Kumar	Secretary, BEE
Vandana Thakur	Manager-BLY, BEE
Vijeta Jangra	Project Engineer, BEE

S. Ramaswamy	Senior Technical Specialist, GTZ
Manu Maudgal	Technical Specialist, GTZ
Caroline Van Tilborg	C-Quest Capital (CQC)
Bhaskar Natrajan	C-Quest Capital Green Ventures Private Limited
Jyotsna Goel	C-Quest Capital Green Ventures Private Limited
Ang Kong Nian	CQC Malaysia Private Limited
P. R. Reddy	Director (Finance), AP Distribution Co. Ltd. (APDISCOM)
S. S. Sastry	Superintending Engineer, APDISCOM
J. Sreenivasulu	Divisional Engineer (DE), AP Central Power Distribution Co. Ltd. (AP-CPDCL)
G. Parvatam	DE-Operations, Habsiguda, AP-CPDCL
Abhay Gopal Bhatt	Professor, Indian Statistical Institute

2.4 Cross-check

During the validation process the team has made reference to available information related to similar projects or technologies as the CDM PoA. Project documentation has also been reviewed against the approved methodology/ies applied to confirm the appropriateness of formulae and correctness of calculations.

2.5 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the requests for corrective actions, clarifications, and any other outstanding issues which need to be clarified for TÜV SÜD's conclusion on the PoA design. The CARs and CRs raised by TÜV SÜD are resolved during communication between the managing entity and TÜV SÜD. To guarantee the transparency of the validation process, the concerns raised and responses that have been given are documented in more detail in the validation protocol in Annex 1.

The final PoA-DD version-09 that was submitted in December 2009 serves as the basis for the final assessment presented herewith. Additional changes to the project during the validation process are not considered to be significant with respect to the main CDM objectives.

2.6 Internal Quality Control

Internal quality control is the final step of the validation process and is conducted by the CB “Climate and Energy” who checks the final documentation, which includes the validation report and annexes. The completion of the quality control indicates that each report submitted has been approved either by the head of the CB or the deputy (a veto person is used if necessary). In projects where either the Head of the CB or his/her deputy is part of the assessment team, the approval is given by the one not serving on the project team.

After confirmation by the Managing Entity and/ or CPA Implementer(s) and/ or PP, the validation opinion and relevant documents are submitted to the EB through the UNFCCC web-platform.

3 SUMMARY

The assessment work and the main results are described below in accordance with the VVM reporting requirements. The reference documents indicated in this section and Annex 1 are stated in Annex 2.

3.1 Approval

The project participant and managing entity of the PoA is Bureau of Energy Efficiency from India (Host Country). The host Party India meets the requirements to participate in the CDM.

The Indian DNA has issued a letter of Approval (LoA), No. 4/12/2009-CCC, dated 05th September 2009 authorizing Bureau of Energy Efficiency as a project participant [IRL # 41]. TÜV SÜD received the letter from the project participant directly and considers the provided letter as authentic.

Furthermore, after checking the provided LoA, TÜV SÜD confirms that the letter refers to the precise proposed PoA title in line with the title in the PoA-DD: CFL lighting scheme – “Bachat Lamp Yojana”.

The letter also indicates that the participating Party is a Party to the Kyoto Protocol, and that the participation in the CFL lighting scheme – “Bachat Lamp Yojana” is voluntary. The Indian LoA also confirms that the proposed PoA contributes to the sustainable development of India (host country). Based on the information given in the letter, TÜV SÜD considers the approval as unconditional with respect to these items.

The LoA has been issued by the respective Party’s DNA - Ministry of Environment and Forests (MoEF), Government of India and does not refer to a specific version of the PoA-DD or validation report.

TÜV SÜD considers that the requirements of VVM (§§ 45-48) have been met.

3.2 Participation

The participant of the project activity has been approved by the corresponding Party, which is confirmed by the issued LoA.

The means of validation used are similar to the ones described in Section 3.1, specifically in regard to the approval process of the project activity.

3.3 Programme of Activities Design Documents

The PoA-DD and the CPA-DD template are in compliance with relevant form and guidance as provided by UNFCCC. The most recent version of the forms is used.

TÜV SÜD considers that the guidelines for the completion of the PoA documents in their most recent version have been followed. Relevant information was provided by the Managing entity and/ or project participants in the applicable PoA sections. Completeness was assessed through the protocol included in Annex 1.

3.4 Programme Description

The following description of the programme as per PoA-DD was verified:

The PoA involves replacement of incandescent lamps (ICLs) with quality long life, self-ballasted compact fluorescent lamps (CFLs) in the residential households of India. Bureau of Energy Efficiency, India (BEE) will be the coordinating/managing entity of the CFL lighting scheme –



“Bachat Lamp Yojana” (BLY-PoA). The CDM programme activities (CPAs) under the PoA will be implemented throughout the host country – India. There are no mandatory policies or regulations for the adoption of CFLs in households in India. The proposed PoA is a voluntary action by the coordinating/managing entity – BEE.

Under the BLY-PoA, quality CFLs would be distributed by SSC-CPA implementer(s) to grid-connected residential households in exchange of an incandescent lamp (ICL) and INR 15. The Indian national standard IS-418:2004 would be referred for rated lumen output for ICLs. CFLs with average rated life of 6000 hours or more would be used in the BLY-PoA. This is in accordance with the Indian standard IS-15111:2002.

The BLY-PoA has received budget from the Government of India (GoI). The PoA managing entity - BEE apart from the GoI budget support also receives ODA funding from the Government of Germany (an Annex I country) under a bilateral technical assistance programme. The bilateral programme provides support to technically develop the BLY scheme as a CDM- PoA. It is confirmed that such technical support does not result in diversion of ODA and is separate from and is not counted towards the financial obligations of Germany. Therefore there is no diversion of ODA involved. The starting date of the BLY-PoA is 20th November 2007 based on the date of expenditure finance committee (EFC) budget sanction [IRL # 14]. The length of the PoA is taken as 28 years.

As the CFLs are more energy efficient than ICLs, the replacement would reduce the GHG emissions (CO₂) from fossil fuel dominated power plants connected to the grid.

The information presented in the PoA documents on the technical design is consistent with the actual planning and implementation of the project activity confirmed in the following ways:

- A review of data and information (see annex 2);
- An on-site visit to the place where the associated real case CPA is being implemented and interview with relevant stakeholder and personnel with knowledge of the project in attendance; and
- A review of information related to similar projects or technologies which have been used to validate the accuracy and completeness of the project description.

In conclusion, TÜV SÜD confirms that the PoA project description, as included in the PoA-DD, is sufficiently accurate and complete in order to comply with the requirements of the CDM.

3.5 Eligibility Criteria for CPA Inclusion

The managing entity employs clear and unambiguous criteria for the inclusion of the CPA. The eligibility criteria's have been stated are verifiable with regards to the applicability of the applied methodology AMS.II.J, geographical boundary, CFL distribution scheme, agreements with BEE, usage of default values as indicated in the PoA-DD, collection and disposal of ICLs and CFLs, double counting and de-bundling. The eligibility criteria can be checked at the CPA level by the managing entity and can be confirmed by the DOE during inclusion.

3.6 Operational and Management Plan

A clear and transparent description of the operational and management arrangement has been established by the BEE and stated in the PoA-DD. This has been verified from the BLY-Managing Entity administration manual [IRL # 28].

There is a record keeping system for each CPA under the PoA. The CPAs will follow the BLY-CPA implementation manual [IRL # 29]. BEE will be checking the records for each CPA before submission to the DOE.

The system to avoid double counting has been indicated in the PoA-DD. This will be done by BEE through credentials check and information available on UNFCCC. Also, as each CPA will have a unique geographical boundary in a DISCOM operational area, thus it can be checked whether a CPA under the BLY-PoA already is a registered CDM project or CPA in another PoA from the UNFCCC website.

As per EB 47, Annex 32, paragraph 9, it is clearly explained that the CPA of PoA is exempted from performing de-bundling check.

Provisions are in place to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA. The empanelment and agreement with BEE ensures that those operating the CPA are aware of and have agreed that their activity is being subscribed to the BLY-PoA.

3.7 Monitoring Plan

The verification method does not use sampling among CPAs but verifies each CPA. The monitoring plan provides a transparent system to ensure that no double accounting occurs and that the status of verification can be determined any time for each CPA. The system to avoid double counting has been indicated in the PoA-DD. This would be done by BEE through review of information provided by SSC-CPA with information available with DISCOM / UNFCCC. Also, as each CPA will have a unique geographical boundary (as defined by the DISCOM circle or Division) thus it can be checked whether a CPA under the BLY-PoA already is a registered CDM project or CPA in another PoA.

A summary data-sheet of all CPAs would be maintained with BEE to determine the CER allocation status of all CPAs.

The description provided in the PoA-DD on the operational and management arrangements can be confirmed based on document review and on-site interviews.

3.8 Baseline and Monitoring Methodology

3.8.1 Applicability of the selected methodology

Compliance with each applicability condition as listed in the chosen baseline and monitoring methodology AMS-II.J Version 03 has been demonstrated in PoA-DD section E.2.

The assessment was carried out for each applicability criterion and included, among other checks, a compliance check of the PoA with the applicability conditions in regard to baseline setting and eligible project measures. This assessment also included the review of secondary sources to demonstrate the compliance with applicability conditions.

The methodology-specific protocol, included in Annex 1, documents the assessment process. The results of the compliance check as well as relevant evidence are detailed in the protocol and the information reference list.

- Under the PoA, replacement of ICLs with quality long life, self-ballasted CFLs would take place in the residential households of India. The data determining the residential households would be sourced from the electricity distribution company (DISCOM) operating in the project area.
- The total lumen output of the CFL should be equal to or more than that of the ICL being replaced; The Indian national standard IS-418:2004 and IS-15111:2002 would be referred for rated lumen output for ICLs & CFLs respectively.
- CFLs with average rated life of 6000 hours or more would be used in accordance with the Indian standard IS-15111:2002.

- The aggregate electricity savings by a single CPA is not expected to exceed the equivalent of 60 GWh per year.
- High quality lamps that have been independently tested confirming to national standard IS-15111 will be used under the PoA. As per a recent revision in the national standard, the power factor (PF) of the CFLs should be 0.85 and above for lamps with an average life time of 6000 hours and above. The rated life test reports for these high power factor lamps are not readily available with the manufacturers and are likely to take over 18 months from the date of start of the test. However, the equivalence of rated lifetime of CFLs with low power factor (PF) and high power factor has been confirmed by the lighting expert opinion report [IRL # 33]. Hence, rated life test of CFLs with a power factor of 0.5 and above; with long life which is readily available with the manufacturers as per current international standards (IEC-60969) as well as Indian standard IS-15111 requirements has been used. Further, the life test of the high power factor long life lamps has been also included in the monitoring plan. This is deemed acceptable.
- CFLs utilized under the PoA shall, in addition to the standard lamp specifications, be marked permanently with the BLY scheme logo. This logo is developed especially for the CFLs distributed under this scheme and bears no resemblance with any other marking put by manufacturer, thereby providing a clear unique identification.
- The distribution of CFLs would take place through direct installation at each household; and/or through dedicated distribution points. The collection of replaced ICLs would be done accordingly. The collected ICLs being stored till their destruction. The destruction of ICLs will be documented and the number and power of the ICLs recorded to allow for random verification by the DOE. Further to eliminate double counting of Emission Reductions, the SSC-CPA implementer would take an undertaking from CFL procurement source like manufacturer, trader etc and project households to voluntarily relinquish CERs which generate from CFL use.
- Under the BLY-PoA it has been indicated that INR 15 would be charged for each CFL exchanged and the distribution of number of CFLs has been restricted to 4 (maximum) CFLs per household.
- Where direct installation is not done, CPA implementer would educate the recipient to install the CFL in high-usage areas

TÜV SÜD confirms that the chosen baseline and monitoring methodology is applicable to the PoA project activity.

Emission sources, not addressed by the applied methodology and expected to contribute more than 1% of the overall expected average annual emission reductions, have not been identified.

3.8.2 CPA boundary

The CPA boundary was assessed considering information gathered from the physical site inspection, interviews, and secondary evidence received on the design of the PoA.

The project boundary is the physical, geographical location of each measure (i.e. each CFL) installed. The sources and gases within the boundary have been considered in a clear manner. The CO₂ emissions from the power plants connected to the grid have been included.

TÜV SÜD confirms that the identified boundary, the selected sources, and gases as documented in the PoA-DD are justified for the project activity and are fully in line with the requirements set by the applied methodology.

3.8.3 Baseline identification

The BLY-PoA is a voluntary coordinated action as evident through Expenditure Finance Committee (EFC) document [IRL # 14]. As per the PoA-DD, the possible alternative scenarios are:

- Mandatory replacement of ICLs with new lighting devices with same or greater efficiency without being registered as a CDM project activity;
- Autonomous replacement of ICLs with new lighting devices with same or greater efficiency without being registered as a CDM project activity; and
- Continued use of ICLs.

Based on the on-site interviews with the DISCOM and BEE officials and the host country experience of the audit team it is confirmed that there is no mandated legal requirement for replacing ICLs with CFLs in households in India.

Further, based on the recent Electrical Lamp and Component Manufacturers Association of India (ELCOMA) Statistics it is confirmed that autonomous replacement of ICLs with CFLs faces barriers and is not a likely to be baseline scenario [IRL # 19].

Thus in light of the above, continued use of ICLs has been identified as the likely baseline scenario.

The information presented in the PoA-DD has been validated by an initial document review of all data. Further confirmation has been made based on the on-site visit and a review of information from similar projects and/or technologies [IRL # 2, 4, 23]. The sources referenced in the PoA-DD have been quoted correctly.

TÜV SÜD has determined that no reasonable alternative scenario has been excluded.

Based on the validated assumptions used for project activity calculations, TÜV SÜD considers that the identified baseline scenario is reasonable.

Taking the definition of the baseline scenario into account, TÜV SÜD confirms that all relevant CDM requirements, including relevant and/or sectoral policies and circumstances, have been identified correctly in the project PoA-DD.

A verifiable description of the baseline scenario has been included in the PoA-DD.

In regard to item 86 of VVM, TÜV SÜD confirms the following statements:

- (a) All the assumptions and data used by the project participants are listed in the PoA-DD, including their references and sources;
- (b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PoA-DD;
- (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 sectoral policies and circumstances are considered and listed in the PoA-DD;
- (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.

3.9 Additionality

3.9.1 Prior consideration of the clean development mechanism

The start date of the BLY-PoA has been defined as 20th November 2007, based on the date of the EFC sanction of budget for the programme [IRL # 14]. As this is before 02nd August 2008 and also before the start of the GSP (22nd July 2009) therefore, the prior and ongoing CDM consideration has been assessed as follows:

- EFC Memorandum document (28th May 2007) – The document refers to the announcement of the ‘Bachat Lamp Yojana’ made by the Minister of Power. The scheme being to provide

- energy efficient CFLs at the same cost as of the ICLs and the cost differential be covered through carbon credits generated under the CDM [IRL # 13].
- Summary records of discussions of BEE with representatives of CFL manufacturers (June 2007) – The document indicates the probable road map for implementation of the BLY scheme with reference to CDM [IRL # 46, 47].
 - Contract with the CDM consultant (July 2007) for development of PoA-DD as per AM0046 [IRL # 48].
 - Shift from the large scale methodology AM0046 to small scale methodology AMS.II.C. – Contract with metering agency (25th March 2008) for monitoring activities related to the CDM based CFL scheme ‘Bachat Lamp Yojana’ [IRL # 49].
 - Representation to UNFCCC on PoA Issues (02nd September 2008) in correspondence to the public call for inputs on PoAs (http://cdm.unfccc.int/public_inputs/2008/PoA/cfi/2W1HYL2BGI2875JVF409EX5VMA2ZP1)
 - National launch of Bachat Lamp Yojana by the Union Minister of Power, Government of India (25th February 2009), [IRL # 15].
 - Stakeholder consultation for BLY-PoA (March 2009) [IRL # 39]
 - Shift from the small scale methodology AMS.II.C to the small scale methodology AMS.II.J. (29th May 2009) [IRL # 50].
 - BLY concept note and other supporting evidences available on the website - <http://www.bee-india.nic.in/content.php?id=2>
 - Order for validation to TÜV SÜD (9th June 2009).

3.9.2 Thus based on the chronological events validated with the indicated supporting documents it could be confirmed that there was prior and ongoing CDM consideration for the project activity. Additionality of PoA

The additionality of the programme has been presented in section A.4.3 of the PoA-DD. The approach used in the PoA-DD has been assessed initially through the document review followed by on-site discussions. Finally, the data, rationales, assumptions, justifications, and documentation provided have been verified using local knowledge as well as sectoral and financial expertise.

The additionality at the PoA level has been demonstrated as follows:

- The proposed PoA is a voluntary action by the coordinating/managing entity – BEE.
- It has been demonstrated that autonomous replacement of ICLs with CFLs faces barriers. This was evidenced from the recent ELCOMA statistics [IRL # 19]. This could also be cross-checked from the other similar registered CDM project in the host country [IRL # 23]. Based on the submitted documents and substantiation it is evident that this voluntary coordinated action would not be implemented in the absence of the PoA [IRL # 21, 22].
- It has been clearly demonstrated that there is no mandatory policy or regulation in the host country India enforcing residential users to replace ICLs with CFLs. Also, there are no regulations prohibiting the continuing use of ICLs. This was confirmed based on the on-site interviews with the DISCOM and BEE officials and the host country experience of the audit team [IRL # 4].

Based on the aforementioned approach, TÜV SÜD confirms that the proposed PoA is additional.

3.9.3 Approach for demonstrating CPA additionality

As the BLY-PoA applies the small scale methodology, therefore the additionality can be demonstrated using the guidance given in ‘Attachment A to Appendix B’ of the “Simplified modalities and procedures for small-scale CDM project activities”. The PoA-DD indicates that the investment barrier would be used to demonstrate the additionality of CPAs. The template of financial spreadsheet calculation for a typical CPA has been presented to demonstrate that the financial returns of the proposed project are insufficient without CDM consideration, to justify the investment. Net Present Value (NPV) has been used as the financial indicator for the analysis.

The adopted approach has been checked for the real case CPA submitted along with the PoA-DD. The financial spreadsheet calculation of the real case CPA has also been presented which confirms that the NPV of the project is negative without CDM revenues [IRL # 27].

The cash outflow parameters for the real case CPA have been validated as follows:

Purchase cost of CFLs – Per unit cost of CFL has been taken as INR 90 and INR 110 for the 11 Watts and 20 Watts lamps respectively. It has been found that the price of the type of CFL to be used is in the range of INR 80-130 depending on the wattage of the project CFL. This has been sample-checked against various sources - <http://www.bajaelectricals.com/Compact-Fluorescent-Lamps-c-73.aspx>; <http://www.havells.com/PriceList.aspx>; and Price list of Philips Lighting India (obtained through email correspondence) [IRL # 26]. Further, based on the experience obtained by the audit team validating other similar projects the values for per unit cost of CFL can be confirmed [IRL # 23].

Distribution cost of CFLs – The cost associated with the distribution of per unit CFL has been estimated as INR 20. Although this could not be directly validated, the assumptions based on which it has been estimated are deemed reasonable. Further, based on the experience obtained by the audit team validating other similar projects the values for per unit cost for distribution of CFL can be confirmed [IRL # 23].

ICL Transport, Scrap Handling, and Disposal – The cost associated with the transport, scrap handling and disposal of ICLs has been assumed as INR 6 per ICL (INR 3 per ICL for transport and INR 3 per ICL for scrap handling and disposal). The total cost associated with this parameter as compared to the purchase cost of CFLs is around 6%. Thus the assumption of cost associated with this parameter is deemed reasonable.

CFL Collection, Transportation, and Disposal - The cost associated with the collection, transportation and disposal of CFLs has been assumed as INR 6 per CFL. The total cost associated with this parameter as compared to the purchase cost of CFLs is around 6%. Thus the assumption of cost associated with this parameter is deemed reasonable.

Selling, General and Administrative expenses (SG&A) – Annual expense of INR 500,000 throughout the crediting period has been assumed to occur for the project activity. The total cash outflow associated with this parameter as compared to the purchase cost of CFLs is around 6%. This is deemed reasonable and acceptable.

The cash inflow corresponds to the amount that would be charged for each CFL exchanged.

CFL Revenue from Households - As per the PoA-DD, under the BLY-PoA it has been indicated that INR 15 would be charged for each CFL exchanged. Thus, the project activity without CDM would generate revenues from sales of CFL in the first year only.

Discount rate - The discount rate considered in NPV calculation as 8% is sourced from long term bank deposit rate (www.statebankofindia.com).

The financial calculations have been verified and no mistakes have been found. It is clearly established that project has negative NPV without CDM revenues. Further, the validation team has



checked that even if the cash outflows corresponding to Distribution cost of CFLs; ICL Transport, Scrap Handling, and Disposal; CFL Collection, Transportation, and Disposal; and Selling, General and Administrative expenses (SG&A) are excluded still the NPV remains negative.

Based on the aforementioned approach, TÜV SÜD confirms that additionality can be appropriately demonstrated for a typical CPA.

3.10 Emission Reductions from a typical CPA

The procedures provided in the methodology are correctly depicted in the PoA-DD and the template CPA-DD.

- It has been indicated that the lumen output of the CFLs should be at least the lumens as defined under the national standard IS 418:2004 for ICLs.
- The average daily operating hours have been fixed as 3.5 hours/day.
- The SSC-CPA shall source the transmission & distribution (T&D) losses from the most recent data published either by the DISCOM or an official governmental body. Where these are not available a default value of 10% is to be used.
- All SSC-CPAs shall apply the default value of net-to-gross adjustment (NTG) as 0.95.
- As per the methodology, electricity savings from the efficient lighting equipment installed by the project activity shall be considered from the date of completion of installation of the equipment.
- The grid emission factor would be calculated based on the combined margin approach as indicated in the methodology AMS.I.D. Also, it has been clarified that the emission factor would be fixed ex-ante.

The formulae are correctly presented for the determination of emission reductions.

TÜV SÜD has assessed the calculations of emission reductions. Corresponding calculations have been carried out based on calculation spreadsheets. The parameters and equations presented in the PoA-DD, as well as other applicable documents, have been compared with the information and requirements presented in the methodology. An equation comparison has been made to ensure consistency between all the formulae presented in the PoA-DD, template CPA-DD, calculation files, methodologies (AMS.II.J and AMS.I.D) and the tool (Tool to calculate the Emission Factor for an electricity system).

The assumptions and data used to determine the emission reductions are listed in the PoA-DD and all the sources have been checked.

Based on the information reviewed it is confirmed that the sources used are correctly quoted and interpreted in the PoA-DD.

In summary, the calculation of emission reductions are considered correct and the baseline methodology has been applied correctly according to requirements.

3.11 Monitoring Plan of a typical CPA

The monitoring plan presented in the PoA-DD complies with the requirements of the applicable methodology. The assessment team has verified all parameters in the monitoring plan against the requirements of the methodology and no deviations have been found.

The procedures have been reviewed by the assessment team through document review and interviews with the relevant personnel. The information provided has allowed the assessment team to confirm that the proposed monitoring plan is feasible within the project design. The relevant points of

monitoring plan have been discussed with the PoA managing entity and the CPA implementers. Specifically; these points include the monitoring methodology, data management, and the quality assurance and quality control procedures to be implemented in the context of the project. Therefore, the PoA managing entity and/or CPA implementer(s) will be able to implement the monitoring plan and the achieved emission reductions can be reported ex-post and verified.

3.11.1 Parameters determined ex-ante

The parameters that are determined ex-ante are:

NTG – The default value of 0.95 is taken for the Net-to-gross adjustment factor;

O_i – The default value of 3.5 hours/day is taken for the average daily operating hours of the lighting devices replaced by the group of ‘*i*’ lighting devices;

L_i - Rated average life for equipment type *i* (hours) determined as per the independent life-tests of the CFLs as per national / international standard. Currently the life test reports and test curves of high power factor, long life CFLs is not available and is likely to take over 18 months from the date of start of the test. However, the equivalence of rated lifetime of CFLs with low power factor (PF) and high power factor has been confirmed by the lighting expert opinion report [IRL # 33]. Hence, rated life test of CFLs with a power factor of 0.5 and above; with long life which is readily available with the manufacturers as per current international standards (IEC-60969) as well as Indian standard IS-15111 requirements has been used. Further, the life test of the high power factor long life lamps has been also included in the monitoring plan. This is deemed acceptable.

$EF_{CO_2, ELEC}$ – The grid emission factor (tCO₂/MWh) is fixed ex-ante. The inclusion of this parameter has been done in accordance with the methodology and tool applied. The latest version of CDM baseline CO₂ emission database by Central Electricity Authority (CEA), India would be used.

In summary, the parameters determined ex-ante have been presented correctly according to requirements are considered in accordance with the applied methodology.

3.11.2 Parameters determined ex-post

The parameters that are to be monitored ex-post are:

TD_y – The average annual technical grid losses (transmission and distribution) would be updated and determined from recent audited data published either by the DISCOM or an official governmental body. Else the SSC-CPA would apply the default value of 10%.

Lamp distribution data - Number of pieces of CFLs distributed under the programme activity, identified by the type and date of supply; Number and power of the replaced ICLs; Data to unambiguously identify the recipient of the CFLs distributed under the CPA corresponding to the utility consumer number provided by the relevant DISCOM.

Destruction of ICLs - The destruction of baseline ICLs would be documented and verifiable by DOE at random.

Ex post monitoring survey - The parameters obtained from the ex-post monitoring survey are: High power factor CFL life test report and test curves; Sample size of Monitoring Survey; Lamp Failure Rate for CFL type *i* in year *y* (fraction); Number of CFLs of the group of ‘*i*’ CFLs (e.g. 20W CFL) in operation during the first 12 months of distribution.

Statistical sound sampling has been adopted and sampling plan design has been described transparently in the PoA-DD. Simple random sampling approach has been adopted. The sampling size is determined with minimum 90% confidence interval and maximum 10% error margin. The minimum sample size of CFLs to be taken is 100 in accordance with the methodology requirements. Further,

the sampling plan design has been assessed to be adequate based on the statistics expert opinion obtained from the Indian Statistical Institute to the validation team during the on-site audit.

In summary, the parameters determined ex-post have been presented correctly according to requirements are considered in accordance with the applied methodology.

3.11.3 Monitoring and Reporting System and Quality Assurance

The operational and management structure has been clearly described and in compliance with the envisioned situation. The responsibilities and institutional arrangements for data collection and archiving has been clearly provided. The information provided in the PoA-DD could be confirmed based on the on-site interviews and also through the submitted documentary evidence - BLY Administration Manual for Managing Entity and SSC-CPA implementer manual [IRL # 28, 29].

3.12 Stakeholder Consultation

It has been indicated that the local stakeholder consultation is done at the PoA level. The justification of doing local stakeholder consultation at the PoA level has been provided. This is in light of the fact that (i) the PoA covers entire India; and (ii) the key institutional stakeholders like leading NGO's active in this field, CFL manufacturers, electricity regulatory bodies act at the national level.

Stakeholder opinion has been sought from different regions all across India through stakeholder meetings at regional and national level. The relevant local stakeholders have been invited via: (i) BEE web-site ([http://www.bee-india.nic.in/content.php?id=2, http://www.energymanagertraining.com/CDM/cdm_main.htm](http://www.bee-india.nic.in/content.php?id=2,http://www.energymanagertraining.com/CDM/cdm_main.htm)); (ii) day-to-day interaction meetings with DISCOMS, Investors, and NGOs etc.; and (iii) Advertisements in Newspapers (in English, vernacular language) [IRL# 39]. The report on stakeholder consultations carried out all across India on the PoA has been submitted [IRL# 40]. The assessment team has reviewed the documentation in order to validate the inclusion of relevant stakeholders. Team local expertise has confirmed that the communication method used to invite the stakeholders is appropriate. The summary of comments presented in the PoA-DD has been verified with the documentation of the stakeholder consultation and has been found to be complete.

Comments presented by the local stakeholders have been taken into account by the PoA managing entity and has been verified with information obtained during interviews.

Hence, the local stakeholder consultation has been performed adequately according to the CDM requirements.

3.13 Environmental Analysis

It has been indicated that the environmental analysis is done at the PoA level. There are no host country requirements for EIA for this kind of programme - replacement of ICLs with CFLs (<http://envfor.nic.in/legis/eia/so1533.pdf>) [IRL# 34]. However, likely environmental impacts have been discussed in the PoA-DD [IRL# 35, 36, 37]. The environmental impacts due to mercury and glass disposal have been indicated ([http://envfor.nic.in/mef/Task%20Force%20report1.pdf; http://www.cpcb.nic.in/upload/NewItems/NewItem_134_Final%20Technical%20GUIDELINES.pdf](http://envfor.nic.in/mef/Task%20Force%20report1.pdf;http://www.cpcb.nic.in/upload/NewItems/NewItem_134_Final%20Technical%20GUIDELINES.pdf)).

At present, there are no regulations for mercury management from fluorescent lamps in India. However, the LoA by the host country (India) to the PoA includes a clause stating that the Managing/Coordinating Entity need to ensure the collection and disposal of the fused CFLs, especially in regard to its mercury content, as per prevalent regulations applicable at that time [IRL# 41]. It has been indicated in the PoA-DD that the CPA investors need to follow the law of the land regarding the disposal of ICLs and CFLs. In this context an eligibility criteria has been included in the PoA-DD for commitment towards collection and destruction of the ICLs generated out of SSC-CPA project; and



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CFL disposal as per the applicable directions of MoEF / State Pollution Control Board. In conclusion, the PoA follows the requirements of the host country with regards to addressing environmental impacts.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜD published the project documents on the UNFCCC website and invited comments by affected Parties, stakeholders, and non-governmental organisations during a 30 day period.

All key information gathered is presented in the table below

GSP Comments

website: http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/WOW1YYO9VEFAM3D6H2GJ4BZ4AW9YJL/view.html
Starting date of the global stakeholder consultation process: 22-07-2009
Comment received by fax, submitted by: Bhabesh Nath
Issues raised: <u>Comment 1.</u> The POA mentions that the DISCOMs can be an investor as well. - Has the Bureau of Energy Efficiency (BEE) in India ever sent any guidelines or information to the discoms in India to be investors in the projects under the Bachat Lamp Yojana as mentioned in the section A.2 of CDM SSC POA PDD? - Has BEE undertaken any program with any discom in India as a demonstration project without any third party involvement/participation? It is understood that the Discoms in India are engaging in commercial and profit making activity by seeking investors and participants in the Bachat Lamp Yojana through a commercial tendering process/route. Instead of being a Voluntary action, the discoms in India are understood to have publicly auctioned the project areas by promoting bids on sharing of CERs under the Bachat Lamp Yojana. This violates the additionality of the projects and also amounts to the misuse of CDM mechanism to promote private profiteering for the discoms irrespective of the fact if they are CPA Implementers or not. <u>Response from PP</u> <ul style="list-style-type: none">• Information had been disseminated to DISCOMs through stakeholder meetings in the region, Chief Ministers Meeting at National level, through meetings with State Designated Agencies and through the BEE website.• BEE has not directly involved with DISCOMs for CFL distribution. However, DISCOMs at Bangalore, Haryana and others had been distributing CFLs through bulk procurement and other schemes with limited success. Refer PoA-DD section A.2.• DISCOMs identify investors through competitive tenders for carrying out the activities. Participation in the tender is purely voluntary action on behalf of the SSC-CPA investor. DISCOMs sign a bilateral MOU with the short-listed private investors for carrying out the project activity. For the services rendered to the private investors such as distribution of CFL and other activities as a fee some of the DISCOMs seek a share of CERs which may accrue. It is clarified that the BEE is not party to such bilateral agreements. <u>Response by TÜV SÜD:</u> The issue is clarified by the BEE as a coordinating/managing entity. Discoms have not been indicated as investors in the revised PoA-DD.
<u>Comment 2.</u> Is The Bachat Lamp Yojana only another name for the POA? Or is it a national policy program of the government of India. If yes, is the POA just a part of Bachat Lamp Yojana? Does the BEE have separate budgets

from the Government of India to conduct the monitoring activities of the projects under the POA? Is this a form of subsidy or public funding by the government of India for such projects? Does the Bachat Lamp Yojana also facilitate projects under methodologies apart from AMS II.J? If yes, is there a separate eligibility criteria for that and is there an additional budget sanctioned from the government of India for this purpose. Has this been communicated to all the discoms and public? Has BEE agreed to support any CFL lighting projects in India outside its own POA? If yes, does it share the same roles and responsibilities as mentioned under the POA?

Response from PP

- Bachat Lamp Yojana is the CDM based scheme of Ministry of Power. BEE is the implementing agency of this programme. CDM was considered in the scheme design of BLY and the EFC document may be referred. Thus primarily the BLY and the PoA are synonymous, except some stand-alone projects which make use of the monitoring provisions under BLY scheme budget.
- The BLY scheme initially employed the CDM meth AM0046 and subsequently transited to AMSIIC and then AMS IIJ. The PoA-DD under validation applies AMS IIJ. However, stand-alone CDM projects using AMS IIC / AMS IIJ are also eligible to receive monitoring support under the BLY scheme budget sanction. The BLY budget from the Government accommodates both methodologies and supports provision of monitoring equipment to BLY project(s).
- Yes, the BLY supports stand-alone CDM projects using AMSIIC methodology. For these projects, the BEE undertakes to completely monitor the projects upto 2012. The details are as provided on BEE website.

Response by TÜV SÜD:

The issue is clarified by the BEE as a coordinating/managing entity.

Comment 3.

Is a deviation of +/- 10% of lumen output of CFL vs. the ICL replaced permitted under the Bachat Lamp Yojana or not? Would this be different for other methodologies of UNFCCC like AMS IIC or others?

Response from PP

The stated deviation of +/- 10% is not applicable under the applied methodology AMS IIJ. Please refer PoA-DD section E.6.1. Thus, AMS II.J provisions are different from other methodologies like AMS II.C. Please refer to UNFCCC website.

Response by TÜV SÜD:

The issue is clarified by the BEE as a coordinating/managing entity.

Comment 4.

It is mentioned in the POA that there are no manufacturing facilities for the CFL lamps for more than 6000 hours with a power factor of 0.85 in India at present. However, the intent of the POA is to use CFL lamps of more than 10,000 hours of 0.85 power factor. This is self contradictory and violates the spirit of the POA thus making the projects non-starters or delaying the projects till the lamps get manufactured in India. If the CFL lamps need to be imported from outside India, then it again violates the spirit of sustainable development in India as it is not generating any employment and only helping the international manufacturers to sell their products utilising the CDM mechanism. It may be highlighted that CFL lamps constitute at least 80% of the project costs in this case. There is however, no transfer of technology taking place in this case.

Response from PP

The BLY PoA objective is to – replace ICLs amongst residential users in India with quality long-life CFLs. The project CFLs shall meet the requirements of IS-15111 which specifies lamps with atleast 6000 hours rated life. Longer life lamps would be advantageous, thus SSC-CPA investors in talks with manufacturers to procure lamps with life greater than 6000 hours e.g. 10,000 hours. Already some of the manufacturers have started manufacturing long life high PF lamps in India. Some are intending to assemble in completely knock down kits. Some lamps would need to be imported. Post-UNFCCC registration when the BLY scheme gets into implementation mode it is anticipated that there would be a market transformation in India to long-life high PF, high

quality CFL manufacturing.

Response by TÜV SÜD:

The issue is clarified by the BEE as a coordinating/managing entity.

Comment 5.

The Roles and responsibilities of BEE include the allocation of CERs to the project participants. The queries in this regard are as follows;

- Has BEE put a mechanism in place to evolve a system of how would the CERs shall be allocated?
- How much time would BEE take to allocate the CERs to the project participants?
- Does BEE have to refer to any other government department in India or take any clearances from any other department before the CERs are finally allocated to the participants?
- Has BEE designated an officer responsible for the allocation of CERs?
- Would the CERs be allocated by BEE at each crediting period to the participating entities?
- Would BEE take any share of CERs as a transaction cost or other expenses/costs at any time in the PoA life of 28 years or at the time of allocation of CERs to participants?

Response from PP

- The BEE has internal procedures and designated officials to process CER allocation.
- The CERs are expected to accrue after CFL distribution and thus one can expect to invite DoEs for verification not earlier than 1 year from CFL distribution. The UNFCCC due diligence process would be followed. Once the CERs are issued to the BEE (managing entity) the same would be transferred to the SSC-CPA.
- BEE has no intentions to take any CERs. BEE has the budget to manage this programme including providing monitoring equipment till 2012 and after this period, BEE would only carry out the managing entity activities.

Response by TÜV SÜD:

The issue is clarified by the BEE as a coordinating/managing entity.

Comment 6.

The discoms in the project are going to be responsible for the storage of CFL lamps at the distribution venues. Has BEE sent any guidelines to the discoms to check theft and pilferage of the CFL lamps being distributed under the Bachat Lamp Yojana? Has BEE asked the discoms of the state governments where the discoms are located, to pass a law to check the pilferage and theft of the CFL lamps under the Bachat Lamp Yojana?

Response from PP

- The SSC-CPA investor and the DISCOM evolve a working relation-ship to implement the scheme on the ground including CFL storage. The BEE does not issue any guidelines on implementation apart from those already stated in the PoA-DD.
- Once the entire residential area is covered under the project, the theft and pilferage would come down as and when a number of SSC-CPAs increase. This risk need to be borne by SSC-CPA.

Response by TÜV SÜD:

The issue is clarified by the BEE as a coordinating/managing entity.

Comment 7.

- Why would BEE not fund the monitoring activities till entire crediting period of the POA, i.e.; 28 years? Why is BEE funding the monitoring activity till 2012 only?
- In the unlikely scenario of collapse of Kyoto Protocol and absolute change in the CDM regime, would the

POA stand suspended? If yes, then would the BEE stop funding the monitoring activity of the projects?

Response from PP

- BLY project was sanctioned for the five year plan (2007-2012). Providing monitoring equipment was envisaged earlier and is not required under the applied methodology AMS.II.J. BEE shall continue to provide other managing entity services for the PoA.
- BEE expects the continuity in the Kyoto regime in some form or the other. BEE would support the PoA as long as the SSC-CPA projects are in operation.

Response by TÜV SÜD:

The issue is clarified by the BEE as a coordinating/managing entity.

Comment 8.

In case of a fault or failure or miscalculation or withdrawal of any CPA project under the POA, would it have an adverse impact on other CPA projects? If yes, would the DOE or BEE indemnify or protect other CPA projects & its participants under the POA?

Response from PP

In case of a fault or failure or miscalculation or withdrawal of any CPA project under the POA, it would not have any adverse impact on other CPA projects. In all cases, UNFCCC procedures shall be followed

Response by TÜV SÜD:

The issue is clarified by the BEE as a coordinating/managing entity.

5 VALIDATION OPINION

TÜV SÜD has performed a validation of the following proposed CDM PoA project:

CFL lighting scheme – “Bachat Lamp Yojana”

Standard auditing techniques have been used for the validation of the project. A methodology-specific protocol for the PoA has been prepared to conduct the audit in a transparent and comprehensive manner.

An analysis, as provided by the applied methodology, demonstrates that the proposed PoA is not a likely baseline scenario. Emission reductions attributable to the PoA are additional to any that would occur in the absence of the project activity. Given that the PoA is implemented as designed, the CPAs under the same are likely to achieve emission reductions.

The validation is based on the information made available to TÜV SÜD, as well as the engagement conditions detailed in this report. The validation has been performed following the VVM requirements. The single purpose of this report is its use during the registration process as part of the CDM project cycle. TÜV SÜD cannot be held liable by any party for decisions made, or not made, based on the validation opinion beyond this purpose.

The review of the PoA design documentation, subsequent follow-up interviews, and further verification of references have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria in the protocol. In the opinion of TÜV SÜD, the PoA meets all relevant UNFCCC requirements for the CDM if the underlying assumptions do not change. TÜV SÜD recommends the PoA project for registration by the CDM Executive Board.

Munich, 25-03-2010



Thomas Kleiser

Certification Body “Climate and Energy”
TÜV SÜD Industrie Service GmbH

India, 25-03-2010



Bratin Roy

Assessment Team Leader

Validation of the CDM PoA:
CFL lighting scheme – “Bachat Lamp Yojana”



Industrie Service

Annex 1: Validation Protocol

Validation Protocol CDM-PoA-DD

Programme (PoA) Title: CFL lighting scheme – “Bachat Lamp Yojana”

Date of Completion: 25-03-2010

Number of Pages: 41



Table 1 Conformity of CDM Programme of Activities

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
A. General description of small-scale programme of activities (PoA)				
A.1. Title of the small-scale programme of activities (PoA)				
A.1.1. Does the used PoA title clearly enable to identify the unique CDM programme of activities?	1, 43	Yes, the PoA title clearly enables to identify the unique CDM PoA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.2. Are there any indications concerning the revision number and the date of the revision?	1, 43	Yes, the GSP-PoA-DD is indicated version number 01, dated 15/07/2009. The final PoA-DD is dated 09-12-2009, Version 09.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.3. Is this consistent with the time line of the programme's history?	1, 43	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2. Description of the small-scale programme of activities				
A.2.1. Is the description delivering a transparent overview of the general operating and implementing framework of the PoA?	1, 4	Yes, it has been described clearly that Bureau of Energy Efficiency, India (BEE) will be the coordinating/managing entity of the PoA. The CDM programme activities (CPAs) included in the PoA will be implemented in India. The PoA involves replacement of incandescent lamps (ICLs) with quality long life, self-ballasted compact fluorescent lamps (CFLs) in the residential households.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2.2. Is the policy/measure or stated goal of the PoA clearly and unambiguously presented?	1, 4, 5	Yes, it has been clearly presented that the PoA objective is to replace the ICLs with quality long-life CFLs among the residential users in India. <u>Corrective Action Request No.1.</u> The life time of the CFL lamp to be mentioned under PoA.	CAR	<input checked="" type="checkbox"/>
A.2.3. What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	4, 6	Tripartite agreement between BEE, Investor and DISCOM has been submitted for understanding of the arrangements under the PoA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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A.2.4. Is the information provided by these proofs consistent with the information provided by the PoA-DD?	4, 6	Yes.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2.5. Is there a valid confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity?	1, 4, 7, 8	Yes, it has been indicated that proposed PoA is a voluntary action by the coordinating/managing entity – BEE.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2.6. Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance?	1, 43	Corrective Action Request No.2. It is understood that the CFLs are more energy efficient than ICLs, please indicate so in the PDD confirming the same. Also, indicate how this would impact the greenhouse gas balance.	CAR	<input checked="" type="checkbox"/>
A.2.7. Is the brief explanation how the programme will reduce greenhouse gas emission transparent and suitable?	1, 43	Please refer CAR above	CAR	<input checked="" type="checkbox"/>
A.3. Coordinating/managing entity and participants of SSC-PoA				
A.3.1. Is the form required for the indication of project participants correctly applied?	1, 43	Yes, the form has been correctly applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3.2. Is the participation of the listed entities or Parties in the PoA confirmed by each one of them?	1, 41, 42	Corrective Action Request No.3. As per EB 47, Annex 29, “The operators of individual CPAs are not required to be project participants. CDM programme participation is only recorded at the PoA level”. Please revise the PoA-DD accordingly.	CAR	<input checked="" type="checkbox"/>
A.3.3. Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	1, 43	BEE has been indicated as the coordinating/managing entity and has been consistently included in Annex-1. Further, please refer CAR3 above.	CAR	<input checked="" type="checkbox"/>
A.3.4. Is it evident that the coordinating or managing entity of the PoA is the entity which communicates with the Executive Board (EB)?	42	Yes, the modalities of communication (MoC) has been submitted.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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A.3.5. Is it evident whether individual project participants are involved in one of the CPAs related to the PoA?	1, 43	Please refer CAR3 above	CAR	<input checked="" type="checkbox"/>
A.4. Technical description of the small-scale programme of activities				
<i>A.4.1. Location of the programme of activities</i>				
A.4.1.1. Does the information provided on the location of the programme allow for a clear definition identification of the boundary for the PoA in terms of a geographical area, within which all CPAs included in this PoA will be implemented?	1, 43	The CPAs under the PoA will be implemented throughout the host country – India.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.1.2. Is the consideration of all applicable national and/or sectoral policies and regulations of each host country within the boundary evident and substantiated?	1, 5, 43	<u>Corrective Action Request No.4.</u> Although It has been indicated in section A.2 of the PDD that there are no mandatory policies or regulations for the adoption of CFLs in households in India. Please include the information on all applicable national and/or sectoral policies and regulations which are relevant to the PoA.	CAR	<input checked="" type="checkbox"/>
A.4.1.3. Is/are the Host Party(ies) stated?	1, 43	India has been stated as the host party.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>A.4.2. Description of a typical small-scale CDM programme activity (CPA)</i>				
A.4.2.1. Is it unambiguously stated which technology or measures are to be employed by the SSC-CPA?	1, 31, 43	It has been stated that the ICLs would be replaced by CFLs in the grid connected households. The Indian national standard IS 418:2004 would be referred for rated lumen output for ICLs; accordingly the CFL wattages have been indicated. <u>Clarification Request No. 1.</u> Please submit the Indian national standard IS 418:2004 for ICLs and Bureau of Indian Standards (IS 15111).	CR	<input checked="" type="checkbox"/>
A.4.2.2. Is the type and category of project activities correctly identified and indicated?	1 - 3, 43	<u>Corrective Action Request No.5.</u> Please indicate the type and category in section A.4.2.1 of the PoA-	CAR	<input checked="" type="checkbox"/>

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		DD.		
A.4.2.3. Does the technical design of the project activity reflect current good practices?	1, 43	The PoA envisages using energy efficient long life CFLs in place of ICLs and thus reflect current good practices.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.4. Does the implementation of the project activity require any technology transfer from Annex-I-countries to the host country (ies)?	1, 5, 43	<u>Corrective Action Request No.6.</u> Please indicate whether the implementation of the project activity require any technology transfer from Annex-I-countries to the host country.	CAR	<input checked="" type="checkbox"/>
A.4.2.5. Is the technology implemented by the project activity environmentally safe?	1, 5, 43	Yes, the technology implemented by the project activity is expected to be environmentally safe as they have been indicated to confirm with the Bureau of Indian Standards (IS 15111).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.6. Is the information provided in compliance with actual situation or planning?	1, 4, 43	Yes, it is under compliance.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.7. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	1, 5, 43	<u>Clarification Request No. 2.</u> Please clarify how it is ensured that the CFLs used under the PoA are significantly better performing than the commonly used technologies in India.	CR	<input checked="" type="checkbox"/>
A.4.2.8. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1, 4, 5, 43	As the PoA envisages replacement of the ICLs with long-life CFLs therefore it is unlikely that the technology is likely to be substituted within the project period.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.9. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	4	Project does not require extensive initial training and maintenance efforts.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.10. Is information available on the demand and requirements for training and maintenance?	4	Not required.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.11. Is a schedule available for the im-	28,	Managing Entity Administration manual and SSC CPA implementa-	CR	<input checked="" type="checkbox"/>

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plementation of the project and are there any risks for delays?	29	tion Manual are available as a guidance document for implementation. Clarification Request No. 3. Project implementation schedule needs to be submitted.		
A.4.2.12. Are there clear and unambiguous eligibility criteria for the inclusion of a SSC-CPA into the PoA?	1, 4, 34 - 38, 41, 43	Yes, the eligibility criteria's have been stated clearly with regards to the applicability of the applied methodology AMS.II.J, geographical boundary, CFL distribution scheme, agreements with BEE, usage of default values as indicated in the PoA-DD, collection and disposal of ICLs and CFLs, double counting and de-bundling. Clarification Request No. 4. Please clarify how the commitment of the CPA investor towards collection and destruction of the ICLs generated out of SSC-CPA project and CFL disposal as per the applicable directions of MoEF / State Pollution Control Board can be confirmed.	CR	<input checked="" type="checkbox"/>
A.4.3. Description of how the anthropogenic emissions of GHG by sources are reduced by a SSC-CPA below those that would have occurred in the absence of the registered PoA (assessment and demonstration of additionality of the PoA as a whole)				
A.4.3.1. Is it evident and clearly documented that the proposed PoA is a voluntary coordinated action?	1, 6, 12, 13, 14, 19, 27, 43, 46 - 50	Clarification Request No. 5. Please submit the following referred documents: 1. Expenditure Finance Committee (EFC) document; 2. Tripartite agreement template; 3. Supplementary material for Rajya Sabha starred question diary number 3592 for answer on 18-08-2006; 4. BLY EFC Document, Bureau of Energy Efficiency, 2007, pp 3; 5. ELCOMA Statistics, May 2009; 6. ELCOMA communication to support; and 7. Financial calculations excel sheet. Corrective Action Request No.7.	CR, CAR	<input checked="" type="checkbox"/>

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		PP needs to include information on CDM consideration prior to implementation of PoA. A separate time line for activities related to project implementation and CDM related activities needs to be incorporated.		
A.4.3.2. Is it evident and substantiated that this voluntary coordinated action would not be implemented in the absence of the PoA?	6, 7, 8, 11 - 27	Please refer CR above	CR	<input checked="" type="checkbox"/>
A.4.3.3. Is it evident and substantiated that in case the PoA implements a mandatory policy or regulation this would not be enforced otherwise?	1, 43	Not applicable (NA)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.4. Is it evident and substantiated that in case the PoA implements a mandatory policy or regulation that is enforced the PoA will lead to a greater level of enforcement?	1, 43	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.4. Operational, management and monitoring plan for the programme of activities (PoA)				
A.4.4.1. Is there a clear and transparent description of the operational and management arrangements established by the coordinating/managing entity?	1, 28, 29, 43	<u>Corrective Action Request No.8.</u> Although the description of the operational and management arrangements established by the BEE has been provided, further information on post-validation i.e. verification activities need to be indicated.	CAR	<input checked="" type="checkbox"/>
A.4.4.2. Is there a record keeping system for each CPA under the PoA?	1, 28, 29, 43	<u>Clarification Request No. 6.</u> Please clarify how BEE as the managing entity would ensure that the record keeping system is done appropriately by the SSC-CPA investor.	CR	<input checked="" type="checkbox"/>
A.4.4.3. Is there a system or procedure to avoid double accounting, i.e. to avoid that an included CPA under this PoA already is a registered CDM project or CPA in another PoA?	1, 28 - 30, 43	Yes, the system to avoid double counting has been indicated. This would be done by BEE through credentials check and information available on UNFCCC. Also as each CPA will have a unique geographical boundary thus it can be checked whether a CPA under the	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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		BLY-PoA already is a registered CDM project or CPA in another PoA		
A.4.4.4. Is there a system or procedure to detect whether a SSC-CPA to be included in the PoA is not a de-bundled component of another CPA or CDM project?	3	As per EB 47, Annex 32, paragraph 9, it is clearly explained that the CPA of PoA is exempted from performing de-bundling check.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.4.5. Are provisions in place to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA?	6, 30	Yes, the empanelment and agreement with BEE ensures that those operating the CPA are aware of and have agreed that their activity is being subscribed to the BLY-PoA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.4.6. Is there a monitoring plan for the PoA, including a description of the proposed statistically sound sampling methods or procedures to be used by the DOE for the verification (please consider sampling among CPAs and within CPAs)?	1, 43	<u>Corrective Action Request No.9.</u> Please indicate clearly what method will be adopted for the verification of the CPA(s) – sampling or verification of each CPA.	CAR	<input checked="" type="checkbox"/>
A.4.4.7. In case the coordinating/managing entity opts for a verification method that does not use sampling but verifies each CPA, does the monitoring plan provide a transparent system to ensure that no double accounting occurs and that the status of verification can be determined any time for each CPA?	1, 3, 4, 43	<u>Corrective Action Request No.10.</u> As each CPA is expected to have different characteristics and verification periods, please describe clearly a transparent system to ensure that no double accounting occurs and that the status of verification can be determined any time for each CPA.	CAR	<input checked="" type="checkbox"/>
A.4.5. Public funding of the small-scale project activity				
A.4.5.1. Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?	1, 3, 4, 14, 43	<u>Corrective Action Request No.11.</u> It has been indicated that the managing entity of PoA i.e. BEE receives ODA funding from Germany in the form of technical assistance for the programme; thus does not lead to diversion of ODA. The budget of the BLY-PoA has been sanctioned by the Government of India (GoI). But it is not clear if ODA fund received by BEE is not diverted to the PoA. A clear explanation is required.	CAR	<input checked="" type="checkbox"/>

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A.4.5.2. Is all information provided consistent with the details given in remaining chapters of the PoA-DD (in particular annex 2)?	1, 43	Yes, the information has been consistently provided.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B. Duration of the programme of activities				
B.1. Starting date of the programme of activities				
B.1.1. Is the programme's starting date clearly defined and reasonable?	1, 14, 43	Yes, the start date of the BLY-PoA has been defined as 20 th November 2007, based on the date of the EFC sanction of budget for the programme.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2. Length of the programme of activities (PoA)				
B.2.1. Is the assumed length of the PoA clearly defined by the coordinating managing entity and reasonable (max 28 years)?	1 - 4,14, 43	Clarification Request No. 7. Please clarify the basis of the indicated length of the PoA as 28 years. Please also clarify that if sanctioned 48 Crore (480 Million) INR for the programme is sufficient to run for mentioned period.	CR	<input checked="" type="checkbox"/>
C. Environmental Analysis				
C.1. Definition of the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken:				
C.1.1. Is it defined whether the environmental analysis takes place at PoA or CPA level?	1, 43	Yes, it has been indicated that the environmental analysis takes place at PoA level.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.1.2. Is the choice whether the environmental analysis takes place at PoA or CPA level justified?	34 - 38	Yes, it has been appropriately justified.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.2. Documentation on the analysis of the environmental impacts of the PoA, including transboundary impacts:				
C.2.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	34 - 38	There are no host country requirements for EIA for this kind of programme - replacement of ICLs with CFLs. However, likely environmental impacts have been discussed in the PoA-DD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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C.2.2. Has the analysis of the environmental impacts of the project activity been sufficiently described?	34 - 38	Yes, the environmental impacts due to mercury and glass disposal have been indicated.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.2.3. Will the project create any adverse environmental effects?	34 - 38	The project is likely to create adverse environmental impacts due to mercury and glass disposal.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.2.4. Were trans-boundary environmental impacts identified in the analysis?	1, 43	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.3. Please state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA of the PoA:				
C.3.1. Have the identified environmental impacts been addressed in the project design sufficiently?	1, 34 - 38, 43	Yes, it has been indicated that the CPA investors need to follow the law of the land regarding the disposal of ICLs and CFLs.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.3.2. Does the project comply with environmental legislation in the host country?	34 - 38	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.3.3. Is, per host country laws/regulations, an environmental impact assessment necessary for a typical CPA?	34 - 38	EIA is not required to be carried out for such kind of activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D. Stakeholders' comments				
D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice:				
D.1.1. Is there a clear statement whether the stakeholder comments will be invited at PoA or CPA level?	1, 43	Yes, it has been indicated that the stakeholder comments will be invited at PoA level.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.1.2. Is the choice justified in a clear and reasonable manner?	1, 43	Corrective Action Request No.12. Please justify the choice of doing local stakeholder consultation at the PoA level.	CAR	<input checked="" type="checkbox"/>
D.1.3. If the stakeholder comments will be invited at PoA level, is there sufficient informa-	1, 43	Yes, the various media used for the stakeholder consultation has	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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tion provided, on how comments by local stakeholders were invited?		been clearly indicated.		
D.1.4. If the stakeholder comments will be invited at PoA level, is there a summary of the contents?	1, 39, 40, 43	Yes, it has been indicated that the BLY-PoA has been appreciated by the stakeholders.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.1.5. If the stakeholder comments will be invited at PoA level, is there sufficient information provided, on how due account was taken of any comments received?	1, 39, 40, 43	Clarification Request No. 8. Please provide the documentary evidence of the local stakeholder consultation process.	CR	<input checked="" type="checkbox"/>
D.2. Brief description how comments by local stakeholders have been invited and compiled				
D.2.1. Have relevant stakeholders been consulted?	1, 39, 40, 43	Yes, the relevant stakeholders have been consulted.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.2.2. Have appropriate media been used to invite comments by local stakeholders?	1, 39, 40, 43	Yes, appropriate media has been used to invite comments by local stakeholders as indicated in the PoA-DD. Clarification Request No. 9. Documents related to media used for invitation of stakeholders.	CR	<input checked="" type="checkbox"/>
D.2.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	1, 4, 43	No stakeholder consultation is required in host country for this kind of programme.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.2.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	1, 39, 40, 43	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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D.3. Summary of the comments received				
D.3.1. Is a summary of the received stakeholder comments provided?	1, 43	Please refer CR8 above	CR	<input checked="" type="checkbox"/>
D.4. Report on how due account was taken of any comments received				
D.4.1. Has due account been taken of any stakeholder comments received?	1, 43	Please refer CR8 above	CR	<input checked="" type="checkbox"/>
E. Application of a baseline and monitoring methodology to a typical SSC-CPA				
E.1. Title and reference of the approved SSC baseline and monitoring methodology applied to SSC-CPA included in the PoA				
E.1.1.1. Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	1, 3, 43	Yes, the methodology AMS II.J, Demand-side activities for efficient lighting technologies --- Version 3 - has been indicated.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.1.2. Is the applied version the most recent one and / or is this version still applicable?	1, 2, 3, 43	Yes, the version used is the most recent one at the time of uploading the project for GSP.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.1.3. Is the applied SSC methodology approved by the board, for use in PoA?	1, 2, 3, 43	Yes, the applied SSC methodology has been approved by the board, for use in PoA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.2. Justification of the choice of the methodology and why it is applicable to a SSC-CPA				
E.2.1. Is the applied methodology considered the most appropriate one?	1, 2, 3, 4, 43	Yes, the applied methodology AMS II.J- <i>Demand-side activities for efficient lighting technologies</i> , is the most appropriate small scale methodology for this kind of programme which involves distribution of more efficient CFLs to replace less efficient ICLs in residential applications.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.2.2. Does the SSC methodology account for leakage in the context of a SSC-CPA?	1, 2, 3, 4, 43	As per the applied methodology, avoidance of leakage through scrapping of replaced equipment is addressed, thus no special provisions are required therefore.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Integrate the required amount of sub-checklists on the applicability criteria as given by the applied methodology and comment on at least every line				

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answered with “No”;												
E.2.2.1. Criterion 1: Replacement - This category comprises activities that lead to efficient use of electricity through the adoption of (new) self-ballasted (integrated) compact fluorescent lamps (CFLs) to replace incandescent lamps (ICLs) in residential applications.	1, 2 – 6, 43	<table border="1"> <tr> <td>Applicability checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Criterion discussed in the PDD?</td> <td>Yes</td> </tr> <tr> <td>Compliance provable?</td> <td>Yes</td> </tr> <tr> <td>Compliance verified?</td> <td>Yes</td> </tr> </table> <p>Clarification Request No. 10. How it will be confirmed that CFL are being distributed for residential purpose only?</p>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	CR	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	Yes											
Compliance provable?	Yes											
Compliance verified?	Yes											
E.2.2.2. Criterion 2: Lumen output - 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.	1, 2, 5, 31, 43	<table border="1"> <tr> <td>Applicability checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Criterion discussed in the PDD?</td> <td>No</td> </tr> <tr> <td>Compliance provable?</td> <td>No</td> </tr> <tr> <td>Compliance verified?</td> <td>No</td> </tr> </table> <p>Corrective Action Request No.13. Please provide the indication on the lumen output of the CFLs replacing the ICLs. Also the reference to the national or international standard that would be followed for lumen output should be included.</p>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	No	Compliance provable?	No	Compliance verified?	No	CAR	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	No											
Compliance provable?	No											
Compliance verified?	No											
E.2.2.3. Criterion 3: Lifetime - Project participants are encouraged to replace incandescent lamps with CFLs that have long rated lifetimes and the lowest eligible wattage that delivers the equivalent or better lumen output than the replaced lamp, as this will result in maximum Emission Reductions.	1, 2, 5, 33, 43	<table border="1"> <tr> <td>Applicability checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Criterion discussed in the PDD?</td> <td>No</td> </tr> <tr> <td>Compliance provable?</td> <td>No</td> </tr> <tr> <td>Compliance verified?</td> <td>No</td> </tr> </table> <p>Corrective Action Request No.14. Please provide the indication on the lifetime of the CFLs that would be used under the PoA.</p>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	No	Compliance provable?	No	Compliance verified?	No	CAR	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	No											
Compliance provable?	No											
Compliance verified?	No											
E.2.2.4. Criterion 4: Electricity savings limit - The aggregate electricity savings by a	1, 2, 43	<table border="1"> <tr> <td>Applicability checklist</td> <td>Yes / No / NA</td> </tr> </table>	Applicability checklist	Yes / No / NA	CAR	<input checked="" type="checkbox"/>						
Applicability checklist	Yes / No / NA											

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single programme activity may not exceed the equivalent of 60 GWh per year.		<table border="1"> <tr> <td>Criterion discussed in the PDD?</td> <td>Yes</td> </tr> <tr> <td>Compliance provable?</td> <td>Yes</td> </tr> <tr> <td>Compliance verified?</td> <td>No</td> </tr> </table> <p>Corrective Action Request No.15. Please indicate how the CPAs will comply with the requirement of the methodology regarding the limit of 60 GWh per year.</p>	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	No				
Criterion discussed in the PDD?	Yes											
Compliance provable?	Yes											
Compliance verified?	No											
E.2.2.5. Criterion 5: Quality - High quality lamps that have been independently tested must be used. To ensure this a relevant national or international testing standard shall be followed to determine the rated lifetime of the lighting equipment; the project design document shall cite the standard used to determine the rated lifetime of efficient lamps distributed under the programme activity.	1, 2, 5, 33, 43	<table border="1"> <tr> <td>Applicability checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Criterion discussed in the PDD?</td> <td>Yes</td> </tr> <tr> <td>Compliance provable?</td> <td>Yes</td> </tr> <tr> <td>Compliance verified?</td> <td>No</td> </tr> </table> <p>It has been indicated that the national standard IS: 15111 will be followed. Clarification Request No. 11. Referring to annex-4 of the PoA-DD, please clarify the equivalence of rated lifetime of CFLs with power factor (PF) of 0.5 and above and 0.85 and above.</p>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	No	CR	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	Yes											
Compliance provable?	Yes											
Compliance verified?	No											
E.2.2.6. Criterion 6: Marking - CFLs utilized under the project activity shall, in addition to the standard lamp specifications, be marked for clear unique identification for the project.	1, 2, 4, 43	<table border="1"> <tr> <td>Applicability checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Criterion discussed in the PDD?</td> <td>Yes</td> </tr> <tr> <td>Compliance provable?</td> <td>Yes</td> </tr> <tr> <td>Compliance verified?</td> <td>No</td> </tr> </table> <p>Clarification Request No. 12. It has been indicated that the CFLs being distributed under the PoA will carry the BLY logo. Please clarify how it can be considered as a unique identification.</p>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	No	CR	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	Yes											
Compliance provable?	Yes											
Compliance verified?	No											
E.2.2.7. Criterion 7: Distribution and scrapping - The project design document shall ex-	1, 2, 4,	<table border="1"> <tr> <td>Applicability checklist</td> <td>Yes / No / NA</td> </tr> </table>	Applicability checklist	Yes / No / NA	CAR	<input checked="" type="checkbox"/>						
Applicability checklist	Yes / No / NA											

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plain the proposed method of distribution of efficient lighting equipment and how the following activities will be conducted and documented; baseline incandescent lamps returned (e.g., exchanged for project CFLs), stored and destroyed. The Project 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.	28, 29, 43	<table border="1"> <tr> <td>Criterion discussed in the PDD?</td> <td>No</td> </tr> <tr> <td>Compliance provable?</td> <td>No</td> </tr> <tr> <td>Compliance verified?</td> <td>No</td> </tr> </table> <p>Corrective Action Request No.16.</p> <p>Please indicate how the distribution of CFLs will be carried out and how the following activities will be conducted and documented; baseline ICLs returned, stored and destroyed. Also explain the procedures to 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.</p> <p>What procedure BEE has adopted to ensure no more than 4 CFLs will be distributed in a household.</p>	Criterion discussed in the PDD?	No	Compliance provable?	No	Compliance verified?	No				
Criterion discussed in the PDD?	No											
Compliance provable?	No											
Compliance verified?	No											
E.2.2.8. Criterion 8: Free ridership - The programme 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. Further 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.	1, 2, 4, 43	<table border="1"> <tr> <td>Applicability checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Criterion discussed in the PDD?</td> <td>Yes</td> </tr> <tr> <td>Compliance provable?</td> <td>Yes</td> </tr> <tr> <td>Compliance verified?</td> <td>Yes</td> </tr> </table> <p>Under the BLY-PoA it has been indicated that INR 15 would be charged for each CFL exchanged and the distribution of number of CFLs has been restricted to 4 (maximum) CFLs per household.</p>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	Yes											
Compliance provable?	Yes											
Compliance verified?	Yes											
E.2.2.9. Criterion 9: Usage area - 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 loca-	1, 2, 4, 43	<table border="1"> <tr> <td>Applicability checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Criterion discussed in the PDD?</td> <td>No</td> </tr> <tr> <td>Compliance provable?</td> <td>No</td> </tr> </table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	No	Compliance provable?	No	CAR	<input checked="" type="checkbox"/>		
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	No											
Compliance provable?	No											

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tions 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 recipients of the CFLs.		<table border="1"> <tr> <td>Compliance verified?</td> <td>No</td> </tr> </table> <p><u>Corrective Action Request No.17.</u> Please indicate what action(s) would be undertaken to ensure that the CFLs are installed in locations where the utilization hours are relatively high.</p>	Compliance verified?	No		
Compliance verified?	No					
E.3.Description of the sources and gases included in the SSC-CPA boundary						
E.3.1. Does the SSC-CPA boundary include the physical and geographical location where the programme activities take place (each CFL installed)?	1, 2, 4, 43	Yes.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
E.3.2. Are all sources and gases within the boundary considered in a clear manner?	1, 2, 4, 43	Yes, the sources and gases within the boundary have been considered in a clear manner. The CO ₂ emissions from the power plants connected to the grid have been included.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
E.3.3. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PoA-DD?	1, 2, 4, 43	Yes.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
E.4.Description of how the baseline scenario is identified and description of the identified baseline scenario:						
E.4.1. Have all technically feasible baseline scenario alternatives to the PoA been identified and discussed by the PoA-DD? Why can this list be considered as being complete?	1, 4, 43	Yes, the technically feasible alternatives have been indicated as mandatory replacement, autonomous replacement and continued use of ICLs.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
E.4.2. Does project identify correctly and exclude those options not in line with regulatory or legal requirements?	1, 4, 43	There are no regulations regarding mandatory replacement of ICLs with CFLs, therefore this alternative has been excluded. Also, there are no regulations prohibiting the continuing use of ICLs.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
E.4.3. Have applicable regulatory or legal re-	1, 4,	Please refer above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

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quirements been identified?		43			
E.4.4.	Does the PoA-DD identify the most likely baseline scenario in absence of the project activity?	1, 4, 43	The continued use of ICLs has been identified as the most likely baseline scenario.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.4.5.	Is this identification supported by official and/or verifiable documents (e.g. studies, web pages, certificates, etc)?	1, 6, 12, 13, 14, 19, 27, 43	Please refer A.4.3.1	CR, CAR	<input checked="" type="checkbox"/>
E.4.6.	Is the identified baseline scenario in line with regulatory or legal requirements?	1, 4, 43	Please refer E.4.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of a typical SSC-CPA, included in a registered PoA (assessment and demonstration of additionality):					
E.5.1.	Are the key criteria and data for assessing additionality of a SSC-CPA that is to be included into the PoA clearly and unambiguously stated?	1 – 4, 43 - 45	As the BLY-PoA applies the small scale methodology therefore the additionality can be demonstrated using the guidance given in ‘Attachment A to Appendix B’ of the “Simplified modalities and procedures for small-scale CDM project activities”.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.5.2.	Are the key criteria and data for assessing additionality of a SSC-CPA that is to be included into the PoA based on the additionality assessment in section E.5.1 of the PoA-DD?	1 – 4, 43 - 45	Yes.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.5.3.	Is the choice of the criteria justified, based on the analysis in section E.5.1 of the PoA-DD?	1 – 4, 43 - 45	The description of barriers has been demonstrated at the PoA level thus the criteria for assessing additionality at the CPA level include the assessment and check of the presented barriers.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.5.4.	Does it become evident how these criteria	1 –	The barriers presented at the PoA-DD level would be updated with	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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would be applied to assess the additional-ity of a typical CPA at the time of inclu-sion?	4, 43 - 45	the latest available information and project specific data. Also, the barrier check-list and summary assessment needs to be presented in the CPA-DD.																	
E.5.5. Is this information incorporated into the specific CDM-SSC-CPA-DD (“real case”)?	1 – 4, 43 - 45	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
E.5.6. If the starting date of the programme activity is before the date of validation, is evi-dence available to prove that incentive from the CDM was seriously considered in the deci-sion to proceed with the programme activi-ty?	1, 12 – 16, 43, 46 - 50	Clarification Request No. 13. Please provide evidence to prove that incentive from the CDM was seriously considered in the decision to proceed with the BLY-PoA.	CR	<input checked="" type="checkbox"/>															
E.5.7. Is a complete list of barriers developed that prevents the project activity to occur?	1, 43	Investment barrier and other barriers have been discussed. Under the other barriers – barriers at household level and barriers at market level have been presented.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
E.5.8. Does this list include at least one of the following barriers?	1, 17 – 27, 43	<table border="1"> <thead> <tr> <th>Barrier</th> <th>Discussed?</th> <th>Verifiable?</th> </tr> </thead> <tbody> <tr> <td>Investment</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>Technological</td> <td>No</td> <td>NA</td> </tr> <tr> <td>Due to prevailing practice</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>Other</td> <td>Yes</td> <td>Yes</td> </tr> </tbody> </table> <p>Clarification Request No. 14. Please provide the financial calculation sheets and related support-ing documents to validate the investment barrier.</p> <p>Clarification Request No. 15. Please submit the documentary evidences for the indicated other barriers – barriers at household level and barriers at market level.</p>	Barrier	Discussed?	Verifiable?	Investment	Yes	Yes	Technological	No	NA	Due to prevailing practice	Yes	Yes	Other	Yes	Yes	CR	<input checked="" type="checkbox"/>
Barrier	Discussed?	Verifiable?																	
Investment	Yes	Yes																	
Technological	No	NA																	
Due to prevailing practice	Yes	Yes																	
Other	Yes	Yes																	
E.5.9. Does the discussion sufficiently take	1, 4,	Yes, the relevant national and sectoral policies have been taken into	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															

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into account relevant national and/or sectoral policies?	7, 8	account.		
E.5.10. Is transparent and documented evidence provided on the existence and significance of these barriers?	17 – 27, 46 - 50	Please refer E.5.8	CR	<input checked="" type="checkbox"/>
E.5.11. Is it appropriately explained how the approval of the project activity will help to overcome the identified barriers?	1, 17 – 27, 43, 45	Please refer E.5.8	CR	<input checked="" type="checkbox"/>
E.6. Estimation of Emission reductions of a CPA				
<i>E.6.1. Explanation of methodological choices, provided in the approved baseline and monitoring methodology applied, selected for a typical CPA</i>				
E.6.1.1. Is it explained how the procedures provided in the methodology are applied?	1, 2, 43	Yes, it is explained how the procedures provided in the methodology are applied by the proposed PoA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.6.1.2. Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?	1, 2, 4, 43	<p>It has been indicated that the lumen output of the CFLs should be at least the lumens as defined under the national standard IS 418:2004 for ICLs. The average daily operating hours have been fixed as 3.5 hrs/day.</p> <p>Clarification Request No. 16. Please clarify how the BEE would ensure that the transmission & distribution (T&D) losses indicated in the CPA have used the most recent data published either by a national utility or an official governmental body (if available).</p> <p>Clarification Request No. 17. Please clarify how the BEE would ensure that the net to gross adjustment factor (NTG) used in the CPA is based on a lighting use survey from the same region and not older than 2 years.</p> <p>Clarification Request No. 18.</p>	CR	<input checked="" type="checkbox"/>

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		As per the methodology, electricity savings from the efficient lighting equipment installed by the project activity shall be considered from the date of completion of installation of the equipment. Please clarify how the BEE would ensure the fulfillment of this criterion.														
E.6.2. Equations, including fixed parametric values, to be used for calculation of emission reductions of a SSC-CPA:																
E.6.2.1. Are the formulae required for the determination of emission reductions correctly presented, enabling a complete identification of parameters to be used and / or monitored?	1, 2, 43 - 45	Yes, the formulae are correctly presented for the determination of emission reductions. <u>Corrective Action Request No.18.</u> Please indicate how the grid emission factor would be calculated. Whether it would be fixed ex-ante or updated ex-post?	CAR	<input checked="" type="checkbox"/>												
E.6.2.2. Are the equations, including fixed parametric values, to be used for calculation of emission reductions of a SSC-CPA, completely presented?	1, 2, 43 - 45	Please refer above	CAR	<input checked="" type="checkbox"/>												
E.6.3. Data and parameters that are to be reported in CDM-SSC-CPA-DD form																
E.6.3.1. Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology?	1, 2, 3, 43 - 45	No, the list of parameters presented is not complete. Please refer to CARs and CRs below. <u>Corrective Action Request No.19.</u> Please use the table format as provided in section E.6.3 of the PoA-DD template.	CAR	<input checked="" type="checkbox"/>												
E.6.3.2. Comment on any line answered with “No”																
E.6.3.2.1. Parameter Title: NTG. – Net-to-gross adjustment factor	1, 2, 43	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No / NA</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>NA</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> </tbody> </table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	NA	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	CR, CAR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA															
Title in line with methodology?	Yes															
Data unit correctly expressed?	NA															
Appropriate description of parameter?	Yes															
Source clearly referenced?	Yes															
Correct value provided?	Yes															

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		<table border="1"> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </table> <p>Further, please refer to CR17 and CAR19</p>	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA														
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
E.6.3.2.2. Parameter Title: O _i – Average daily operating hours of the lighting devices replaced by the group of ‘i’ lighting devices (hrs/day)	1, 2, 43	<table border="1"> <tr> <td>Data Checklist</td> <td>Yes / No / NA</td> </tr> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>No</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>NA</td> </tr> </table> <p>Corrective Action Request No.20. Please correct the data unit of the parameter – O_i - Average daily operating hours of the lighting devices replaced by the group of ‘i’ lighting devices.</p>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	No	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA	CAR	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	No																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
E.6.3.2.3. Parameter Title: L _i - Rated average life for equipment type i (hours).	1, 2, 33, 43	<p>Corrective Action Request No.21. Please include the parameter L_i - Rated average life for equipment type i</p>	CAR	<input checked="" type="checkbox"/>																		
E.6.3.2.4. Parameter Title: EF _{CO₂, ELEC} - Emission Factor (tCO ₂ /MWh) (if fixed ex-ante)	1, 2, 32, 43	<p>Corrective Action Request No.22. The inclusion of this parameter should be done in accordance with the methodology and tool applied. Also the spreadsheet for the calculation of the emission factor should be submitted.</p>	CAR	<input checked="" type="checkbox"/>																		
E.7.Application of the monitoring methodology and description of the monitoring plan																						
E.7.1. Data and parameters to be monitored by each SSC-CPA																						
E.7.1.1.Is the list of parameters presented in	1, 2,	No, the list of parameters presented is not complete. Please refer to	CAR	<input checked="" type="checkbox"/>																		

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chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?	3, 43	CARs and CRs below. <u>Corrective Action Request No.23.</u> Please use the table format as provided in section E.7.1 of the PoA-DD template.		
E.7.1.2. <i>TD_y Average annual technical grid losses (transmission and distribution) during year y</i> (A default value of 10% shall be used for average annual technical grid losses, if no recent data are available or the data cannot be regarded accurate and reliable)	1, 2, 43	<u>Corrective Action Request No.24.</u> Please include the parameter <i>TD_y</i> - Average annual technical grid losses (transmission and distribution) during year y.	CAR	<input checked="" type="checkbox"/>
E.7.1.3.Lamp distribution data <ul style="list-style-type: none"> •Number of pieces of equipment distributed under the programme activity, identified by the type of equipment and the date of supply; •Number and power of the replaced devices; •Data to unambiguously identify the recipient of the equipment distributed under the CPA 	1, 2, 28, 29, 43	<u>Corrective Action Request No.25.</u> Please include the parameter <i>Lamp distribution data</i> . Under this parameter the number of pieces of CFLs distributed, identified by the type and the date of supply; number and power of the replaced ICLs; data to unambiguously identify the recipient of the CFLs distributed under the CPA should be recorded. Also, please provide an extract of standardized data forms that would be used to compile this data. <u>Clarification Request No. 19.</u> Please clarify as to how the power rating of replaced ICLs will be recorded. If it is based on nameplate data then what will be done in case there is no wattage labelling on the ICL.	CR, CAR	<input checked="" type="checkbox"/>
E.7.1.4.Destruction of ICLs	1, 2, 28, 29, 43	Yes, this parameter has been included. <u>Corrective Action Request No.26.</u> Once all the CFLs have been distributed, this parameter will be fixed thus would become a constant value independent from 'y'. Please correct the parameter description accordingly.	CAR	<input checked="" type="checkbox"/>
E.7.1.5.Ex post monitoring survey (First; Subsequent, once every three	1, 2, 28,	<u>Corrective Action Request No.27.</u> Please indicate the ex post monitoring survey in the monitoring plan	CAR	<input checked="" type="checkbox"/>

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years or once for every 30% of the elapsed rated lifetime of the lamp)	29, 43	in accordance with the methodology.		
E.7.2. Description of the monitoring plan for a SSC-CPA				
E.7.2.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	1, 28, 29, 43	Yes, the operational and management structure has been defined in the PoA-DD. Clarification Request No. 20. Referred BLY administrative manual needs to be submitted.	CR	<input checked="" type="checkbox"/>
E.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1, 43	Yes, it has been indicated.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.7.2.3. Does the monitoring plan provide current good monitoring practice?	1, 4, 43	Clarification Request No. 21. It has been indicated that when direct installation is not done, to be conservative CFL installation would be deemed 2 days after the date of distribution to household. Please clarify how it can be considered as appropriate.	CR	<input checked="" type="checkbox"/>
E.7.2.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?	1, 4, 28, 29, 43	Additional background information on rated lifetime is provided in Annex-4 of the PoA-DD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.8. Date of completion of the application of the baseline study and monitoring methodology and the name of the responsible person(s)/entity(ies)				
E.8.1.1. Is there any indication of a date when the baseline was determined?	1, 43	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.8.1.2. Has dd/mm/yyyy format been used to indicate the date?	1, 43	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.8.1.3. Is this consistent with the time line of the PoA-DD history?	1, 43	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
E.8.1.4. Is the information on the person(s) / entity (ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?	1, 43	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.8.1.5. Is information provided whether this person / entity is also considered a project participant?	1, 43	Corrective Action Request No.28. Please indicate whether this person / entity is also considered a project participant.	CAR	<input checked="" type="checkbox"/>
F. Annexes 1 – 4				
F.1. Annex 1: Contact Information				
F.1.1. Is the information provided consistent with the one given under section A.3?	1, 41 - 43	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.1.2. Is the information on all private participants and directly involved Parties presented?	1, 41 - 43	Please refer CAR 3 above	CAR	<input checked="" type="checkbox"/>
F.2. Annex 2: Information regarding public funding				
F.2.1. Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?	1, 4, 43	Refer CAR 11	CAR	<input checked="" type="checkbox"/>
F.2.2. If necessary: Is an affirmation available that any such funding from Annex-I countries does not result in a diversion of ODA?	1, 4, 13, 14, 43	Clarification Request No. 22. As indicated that ODA funding is involved from Germany in the BLY-PoA, please provide an affirmation that such funding does not result in a diversion of ODA.	CR	<input checked="" type="checkbox"/>
F.3. Annex 3: Baseline information				
F.3.1. If additional background information on baseline data is provided: Is this in-	1, 32,	The reference to the Central Electricity Authority (CEA) has been	CAR	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
formation consistent with data presented by other sections of the PDD?	43	given for the grid emission factor. Please refer CAR 22		
F.3.2. Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	32	Please refer CAR 22	CAR	<input checked="" type="checkbox"/>
F.3.3. Does the additional information substantiate / support statements given in other sections of the PDD?	1, 32, 43	Please refer CAR 22	CAR	<input checked="" type="checkbox"/>
F.4. Annex 4: Monitoring information				
F.4.1. If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PoA-DD?	1, 4, 43	Yes, additional background information on monitoring is provided in Annex-4 and the same is consistent with information presented in other sections of the PoA-DD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.4.2. Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1, 4, 28, 29, 33, 43	Refer CAR 8, CAR 9 and CR 20.	CR, CAR	<input checked="" type="checkbox"/>
F.4.3. Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PoA-DD?	1, 4, 28, 29, 33, 43	Refer CAR 8, CAR 9 and CR 20.	CR, CAR	<input checked="" type="checkbox"/>

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Table 2 Resolution of Clarification and Corrective Action Requests

Requests by validation team	Ref. to table 1	Summary of programme owner response	Validation team Conclusion
<p><u>Corrective Action Request No.1.</u> The life time of the CFL lamp to be mentioned under PoA.</p>	A.2.2	<p>In India IS 15111 standard specifies a minimum 6000 rated life time. Long life quality CFLs in BLY context would thus meet IS 15111 requirements and have an average rated life of 6000 hours and above. Refer revised PoA-DD section A.2.</p>	<p>It has been clarified in the revised PoA-DD that CFLs with average rated life of 6000 hours or more would be used. This is in accordance with the Indian standard IS-15111. Therefore this issue is closed. <input checked="" type="checkbox"/></p>
<p><u>Corrective Action Request No.2.</u> It is understood that the CFLs are more energy efficient than ICLs, please indicate so in the PDD confirming the same. Also, indicate how this would impact the greenhouse gas balance.</p>	A.2.6	<p>Explanation of CFL technology and its benefits (including energy use reduction) over ICLs is provided in PoA-DD section A.4.2.1. Use of CFLs leads to reduction in GHG emission at the grid level. This is stated in revised PoA-DD section A.2 and E.3.</p>	<p>It has been clarified in the revised PoA-DD that the energy efficient CFLs would reduce the GHG emissions (CO₂) from power plants connected to the grid. Therefore this issue is closed. <input checked="" type="checkbox"/></p>
<p><u>Corrective Action Request No.3.</u> As per EB 47, Annex 29, “The operators of individual CPAs are not required to be project participants. CDM programme participation is only recorded at the PoA level”. Please revise the PoA-DD accordingly.</p>	A.3.2	<p>The BEE is the host country Project Participant in the revised PoA-DD section A.3.</p>	<p>It has been clarified in the revised PoA-DD that Bureau of Energy Efficiency (BEE) is the project participant from host country (India). This issue is thus closed. <input checked="" type="checkbox"/></p>
<p><u>Corrective Action Request No.4.</u> Although It has been indicated in section A.2 of the PDD that there are no mandatory poli-</p>	A.4.1.2	<p>Choice of household lighting technology in India is made by the consumer based on aesthetics and price considerations.</p>	<p>It has been clarified in the revised PoA-DD that IS 15111:2002 is the relevant</p>

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<p>cies or regulations for the adoption of CFLs in households in India. Please include the information on all applicable national and/or sectoral policies and regulations which are relevant to the PoA.</p>		<p>Some of the progressive utilities in India have tried out bulk procurement and marketing of CFLs to households at below market prices and / or introducing replacement schemes. However, the programmes could not be continued on as either the funding support dried up or the subsidy was withdrawn or the utilities themselves were in poor financial status.</p> <p>Technically, the Bureau of Indian Standards (BIS) mandates technical specifications for self-ballasted CFLs viz. IS 15111:2002. These standards however are at best, an in-direct promotion of CFLs.</p> <p>Refer revised PoA-DD section A.2 and section A.4.3 (Barrier at market level) describes the overall policy scenario.</p>	<p>standard given by the Bureau of Indian Standards (BIS) to which the CFLs have to comply with. Therefore this issue is closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Clarification Request No. 1.</u> Please submit the Indian national standard IS 418:2004 for ICLs and Bureau of Indian Standards (IS 15111).</p>	A.4.2.1	<p>The Bureau of Indian Standards (IS 15111) and extracts of the Bureau of Indian Standards IS 418:2004 for ICLs are submitted with this reply</p>	<p>The standard has been submitted. Therefore this issue is closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Corrective Action Request No.5.</u> Please indicate the type and category in section A.4.2.1 of the PoA-DD.</p>	A.4.2.2	<p>PoA Section A.4.2.1 and E.1 states that the applied methodology is AMS-II.J (EB 47, version 03) i.e. Type II and Category is “Demand-side activities for efficient lighting technologies”.</p>	<p>The type and category has been stated in the revised PoA-DD. Therefore this issue is closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Corrective Action Request No.6.</u> Please indicate whether the implementation of the project activity require any technology transfer from Annex-I-countries to the host country.</p>	A.4.2.4	<p>Refer revised PoA-DD section A.4.2.1.</p> <p>The BLY PoA seeks to replace ICLs with CFLs of</p> <ul style="list-style-type: none"> • high quality (IS 15111), • average rated life of 6000 hours and above <p>To benefit from a longer project crediting period, CPA investors are likely to use CFLs with life-times like 10,000 hours or more.</p> <p>Such CFLs are not available off-the shelf neither in India</p>	<p>The PoA-DD has been revised providing the information. Therefore this issue is closed.</p> <p><input checked="" type="checkbox"/></p>

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		<p>or in Annex-1 countries, as high power factor requirement is only in India.</p> <p>Since most of the leading lighting companies have a presence in India like Osram, Philips, Havells, GE etc, CFL <u>technology transfer</u> from Annex-1 countries is not anticipated.</p> <p>However, it is expected that CPA investors shall especially <u>source</u> the project CFLs directly from manufacturing locations based in India as well as abroad (including Annex 1).</p>	
<p><u>Clarification Request No. 2.</u></p> <p>Please clarify how it is ensured that the CFLs used under the PoA are significantly better performing than the commonly used technologies in India.</p>	A.4.2.7	Refer response to CAR 6.	<p>The PoA-DD has been revised providing the information. Therefore this issue is closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Clarification Request No. 3.</u></p> <p>Project implementation schedule needs to be submitted.</p>	A.4.2.1 1	<p>In the context of this PoA distribution of CFLs takes place by multiple CPA-implementers each with their own time-schedule.</p> <p>Hence, for representation purposes a typical project implementation process sequence is depicted in form of a flowchart in revised PoA-DD section A.4.2.</p>	<p>The PoA-DD has been revised indicating the implementation process sequence. It has been clarified that the implementation schedule would be different for each CPA. Therefore this issue is closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Clarification Request No. 4.</u></p> <p>Please clarify how the commitment of the CPA investor towards collection and destruction of the ICLs generated out of SSC-CPA project and CFL disposal as per the applicable directions of MoEF / State Pollution Control Board can be validated.</p>	A.4.2.1 2	<p><u>ICL</u></p> <ul style="list-style-type: none"> • Commitment of the CPA investor towards collection and destruction of ICLs is a necessary requirement of the applied methodology AMS IIJ to determine installed project CFLs in the CPA area. (refer PoA-DD section E.7.2) • SSC-CPA investor shall implement procedures for the independent random verification of the destroyed ICL by a DOE (refer PoA-DD section E.2 / 	<p>The justification provided is deemed acceptable. This issue is thus closed.</p> <p><input checked="" type="checkbox"/></p>

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		<p>A.4.4.1).</p> <ul style="list-style-type: none"> Where applicable, compliance with regulatory norms on ICL disposal would be checked by State Pollution Control Boards. At present there are no norms for ICL disposal. <p><u>CFL</u></p> <ul style="list-style-type: none"> Commitment of the Managing Entity and CPA investor towards collection and destruction of CFLs is a condition of the Host Country Approval. This can be checked only once the fused CFLs are generated ~2-3 years after project implementation. SSC-CPA investor shall implement procedures maintaining records for the collection and destruction of CFLs (refer PoA-DD section E.7.2).Refer SSC-CPA Implementation manual. Where applicable, compliance with regulatory norms on CFLs disposal would be checked by State Pollution Control Boards. At present there are no norms for CFLs, except a Govt. taskforce set-up to develop guidelines for fluorescent lamp disposal. 	
<p><u>Clarification Request No. 5.</u> Please submit the following referred documents:</p> <ol style="list-style-type: none"> Expenditure Finance Committee (EFC) document; Tripartite agreement template; Supplementary material for Rajya Sabha question diary number S3592 for answer on 16-03-2006; 	A.4.3.1	The documents are submitted with this reply.	<p>The requested documents have been submitted. Therefore this issue is closed.</p> <p><input checked="" type="checkbox"/></p>

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<p>4. BLY EFC Document, Bureau of Energy Efficiency, 2007, pp 3; 5. ELCOMA Statistics, May 2009; 6. ELCOMA communication to support; and 7. Financial calculations excel sheet.</p>			
<p><u>Corrective Action Request No.7.</u> PP needs to include information on CDM consideration prior to implementation of PoA. A separate time line for activities related to project implementation and CDM related activities needs to be incorporated.</p>	<p>A.4.3.1</p>	<p>The project chronology prior to start of validation is summarized in form of a flowchart in revised PoA-DD section A.2. Also refer response to CR 3.</p>	<p>The PoA-DD has been revised including the chronology of events. The early and ongoing CDM consideration has been confirmed by the following documents:</p> <ul style="list-style-type: none"> • Expenditure Finance Committee (EFC) document; • Summary records of discussions of BEE with representatives of CFL manufacturers; • Contract with the CDM consultant for development of PoA-DD as per AM0046; • Contract with metering agency for monitoring activities related to the CDM based CFL scheme ‘Bachat Lamp Yojana’; • National launch of Bachat Lamp Yojana by the Union Minister of Power, Government of India; • Stakeholder consultation for

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			<p>BLY-PoA; and BLY concept note and other supporting evidences available on the website - http://www.bee-india.nic.in/content.php?id=2</p> <p>Based on the above, this issue is thus closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Corrective Action Request No.8.</u></p> <p>Although the description of the operational and management arrangements established by the BEE has been provided, further information on post-validation activities need to be indicated.</p>	A.4.4.1	<p>The post-validation requirements and verification activities are further described in revised PoA section A.4.4.1. BLY scheme organogram is included.</p>	<p>The PoA-DD has been revised. Therefore this issue is closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Clarification Request No. 6.</u></p> <p>Please clarify how BEE as the managing entity would ensure that the record keeping system is done appropriately by the SSC-CPA investor.</p>	A.4.4.2	<p>The BEE as managing entity shall verify the record keeping system of the SSC-CPA investor as under:</p> <ul style="list-style-type: none"> • As per PoA section A.4.4.1, the SSC-CPA investor shall establish procedures for document control. Refer SSC-CPA Implementation manual. • Key records pertaining to SSC-CPA eligibility and CER estimation are submitted to managing entity for vetting prior to submission to a DOE. • Further, the data and documents have direct relevance with CER estimation, the CPA data and procedures would be checked by the DOE appointed for validation / verification of the SSC-CPA. 	<p>It has been clarified that the CPAs would follow the implementation manual. BEE would be checking the records for each CPA before submission to the DOE. Based on the justification provided, this issue is thus closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Corrective Action Request No.9.</u></p> <p>Please indicate clearly what method will be adopted for the verification of the CPA(s) –</p>	A.4.4.6	<p>Verification of <u>each CPA</u> shall be done by an appointed DOE. This is indicated in revised PoA-DD section A.4.4.1 and A.4.4.2</p>	<p>The PoA-DD has been revised indicating that each CPA would be verified. This issue is there-</p>

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sampling or verification of each CPA.			fore closed. <input checked="" type="checkbox"/>
<p><u>Corrective Action Request No.10.</u> As each CPA is expected to have different characteristics and verification periods, please describe clearly a transparent system to ensure that no double accounting occurs and that the status of verification can be determined any time for each CPA.</p>	A.4.4.7	<p>The system to avoid double counting has been indicated in PoA-DD Section A.4.4.1. This would be done by BEE through vetting of information provided by SSC-CPA with information available with DISCOM / UNFCCC. Also as each CPA will have a unique geographical boundary (as defined by the DISCOM circle or Division) thus it can be checked whether a CPA under the BLY-PoA already is a registered CDM project or CPA in another PoA. The SSC-CPA implementer/investor shall provide a letter to the managing entity stating that they will not be registering the same activity as a CDM project.</p> <p>A summary data-sheet of all CPAs would be available with BLY manager to determine the CER allocation status of all CPAs.</p> <p>Also see reply to CR 6.</p>	<p>The PoA-DD has been revised indicating that each CPA would be checked by BEE before getting it verified. This issue is therefore closed.</p> <input checked="" type="checkbox"/>
<p><u>Corrective Action Request No.11.</u> It has been indicated that the managing entity of PoA i.e. BEE receives ODA funding from Germany in the form of technical assistance for the programme; thus does not lead to diversion of ODA. The budget of the BLY-PoA has been sanctioned by the Government of India (GoI). But it is not clear if ODA fund received by BEE is not diverted to the PoA. A clear explanation is required.</p>	A.4.5.1	<p>Please refer PoA section A.4.5 and Annex 2.</p> <p>The PoA managing entity (BEE) apart from the Govt of India budget support, also receives ODA funding from the Government of Germany (an Annex I country) under a bilateral technical assistance programme.</p> <p>The bilateral programme therefore provides support to technically develop the BLY scheme as a CDM- PoA.</p> <p>It is affirmed that such technical support does not result in diversion of ODA and is separate from and is not counted towards the financial obligations of Germany.</p> <p>For the BLY PoA development and implementation, the BEE has obtained a special budget for the Bachat lamp Yojana Scheme from the Government of India.</p> <p>Evidence to support the above is being submitted.</p>	<p>The PoA-DD has been revised. It has been clarified that the BLY-PoA has received budget from the Government of India and there is no diversion of ODA involved. This issue is therefore closed.</p> <input checked="" type="checkbox"/>

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<p><u>Clarification Request No. 7.</u> Please clarify the basis of the indicated length of the PoA as 28 years. Please also clarify that if sanctioned 48 Crore (480 Million) INR for the programme is sufficient to run for mentioned period.</p>	<p>B.2.1</p>	<p>The BLY scheme objective is to lead to a market transformation in India- from ICLs to CFLs, by bridging the first cost barrier.</p> <p>The cost differential in-between a CFL and an ICL is not expected to change soon and a long tenure is required to bring about this change all across India.</p> <p>Thus, to enable reaching out of the scheme to cover the entire country, the PoA length of 28 years is taken as admissible under UNFCCC.</p> <p>The sanctioned budget for the BLY scheme is till the year 2012. This budget of INR 48 crore (480 million) provided for monitoring meters, which are not required under the deemed savings approach of AMS IIJ. Thus the surplus funds would be carried beyond 2012 and would get supplemented with BEE's own budget.</p> <p>Thus the BEE has sufficient funds to continue supporting the BLY as a managing entity beyond 2012 till the life of PoA.</p> <p>The latest balance sheet of BEE is being submitted with this reply.</p>	<p>The clarification has been provided that the BLY-PoA has sufficient budgetary support to ensure the length of the PoA as 28 years. This issue is therefore closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Corrective Action Request No.12.</u> Please justify the choice of doing local stakeholder consultation at the PoA level.</p>	<p>D.1.2</p>	<p>Key institutional stakeholders like Standard making bodies, Manufacturers, Electricity regulatory bodies act at the National level. So do leading NGO's active in this field.</p> <p>The PoA covers India and accordingly, stakeholder opinion has been sought from different regions all across India through stakeholder meetings at regional and national level.</p> <p>The consultative process summary is provided in PoA-DD section D.2.</p>	<p>The justification of doing local stakeholder consultation at the PoA level has been indicated in the revised PoA-DD. This issue is therefore closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Clarification Request No. 8.</u> Please provide the documentary evidence of</p>	<p>D.1.5</p>	<p>As evidence, the Stakeholder consultation report is also being submitted.</p>	<p>The requested stakeholder consultation documents have</p>

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the local stakeholder consultation process.			been submitted. Therefore this issue is closed. <input checked="" type="checkbox"/>
Clarification Request No. 9. Documents related to media used for invitation of stakeholders.	D.2.2	The media used for stakeholder consultations are: 1. BEE web-site.(http://www.bee-india.nic.in/content.php?id=2 , http://www.energymanagertraining.com/CDM/cdm_main.htm) 2. Meeting with stakeholders like DISCOMS, Investors, NGOs etc (day-to-day interactions) 3. Advertisements in Newspapers (in English, vernacular language) (sample advertisement attached) 4. Stakeholder Consultations all across India on the PoA during March-April 2009 (report submitted)	The requested stakeholder consultation documents have been submitted. Therefore this issue is closed. <input checked="" type="checkbox"/>
Clarification Request No. 10. How it will be confirmed that CFL are being distributed for residential purpose only?	E.2.2.1	DISCOMS in India have various consumer categories like domestic, commercial, HT, LT, agricultural etc. Each category has unique identification and separate tariffs, thus very household would have a unique consumer ID. For the BLY scheme, the DISCOM shall provide investors with only domestic household consumer data.	The clarification provided is deemed acceptable. Therefore this issue is closed. <input checked="" type="checkbox"/>
Corrective Action Request No.13. Please provide the indication on the lumen output of the CFLs replacing the ICLs. Also the reference to the national or international standard that would be followed for lumen output should be included.	E.2.2.2	The lumen output of the CFLs replacing the ICLs is indicated in PoA-DD section E.6.1. This is as per the Indian standard IS 418. Relevant extract of this standard is being submitted.	The lumen output of the CFLs replacing the ICLs are indicated in section E.6.1 of the PoA-DD. The Indian standard IS 418 indicating the lumen output of ICLs has also been provided. Therefore this issue is closed. <input checked="" type="checkbox"/>
Corrective Action Request No.14.	E.2.2.3	In India IS 15111 standard specifies a minimum 6000	It has been clarified in the re-

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<p>Please provide the indication on the lifetime of the CFLs that would be used under the PoA.</p>		<p>rated life time. Hence, long life CFL in BLY scheme context are CFLs with average rated life of 6000 hours and above. Refer revised PoA-DD section A.2.</p>	<p>vised PoA-DD that CFLs with average rated life of 6000 hours or more would be used. This is in accordance with the Indian standard IS-15111. Therefore this issue is closed. <input checked="" type="checkbox"/></p>
<p><u>Corrective Action Request No.15.</u> Please indicate how the CPAs will comply with the requirement of the methodology regarding the limit of 60 GWh per year.</p>	<p>E.2.2.4</p>	<p>Refer PoA-DD section E.2, each SSC-CPA-DD is required to demonstrate that they qualify under the small scale limit of 60 GWh per year.</p>	<p>The justification is provided in the revised PoA-DD. The aggregate electricity savings by a single CPA is not expected to exceed the equivalent of 60 GWh per year. Therefore this issue is closed. <input checked="" type="checkbox"/></p>
<p><u>Clarification Request No. 11.</u> Referring to annex-4 of the PoA-DD, please clarify the equivalence of rated lifetime of CFLs with power factor (PF) of 0.5 and above and 0.85 and above.</p>	<p>E.2.2.5</p>	<p>Please find enclosed the lighting expert opinion report. As can be studied, the lifetime curves are equivalent.</p>	<p>It has been clarified through the expert opinion report and other test reports that the rated lifetime of CFLs with low power factor (PF) and high power factor are essentially the same. Therefore this issue is closed. <input checked="" type="checkbox"/></p>
<p><u>Clarification Request No. 12.</u> It has been indicated that the CFLs being distributed under the PoA will carry the BLY logo. Please clarify how it can be considered as a unique identification.</p>	<p>E.2.2.6</p>	<p>The methodology demands “clear unique identification for the project.” The BLY scheme logo is developed especially for the CFLs distributed under this scheme and bears no resemblance with any other marking by manufacturer. The BEE shall provide the logo use copy-right only to eligible SSC-CPA investors for marking on the project CFLs thus making them distinct from CFLs from any other</p>	<p>The clarification provided is deemed acceptable. This issue is thus closed. <input checked="" type="checkbox"/></p>

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		sources like the market.	
<p><u>Corrective Action Request No.16.</u></p> <p>Please indicate how the distribution of CFLs will be carried out and how the following activities will be conducted and documented; baseline ICLs returned, stored and destroyed. Also explain the procedures to 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.</p> <p>What procedure BEE has adopted to ensure no more than 4 CFLs will be distributed in a household.</p>	E.2.2.7	<ul style="list-style-type: none"> PoA section E.7.2 explains the CFL distribution methodology. PoA section A.4.4.1 and E.7.2 explains the ICL return, storage and destruction methodology. PoA section A.4.4.1 explains the methodology to avoid double accounting of emission reductions. Further, the SSC-CPA investor takes an undertaking from CFL procurement source like manufacturer, trader etc and project households to voluntarily relinquish CERs which generate from CFL use. Each CPA shall submit to BEE project database for review. Actual distributed CFLs per household would be indicated therein. Refer PoA section E.7.2 	<p>The revised PoA-DD and the clarification provided are deemed acceptable. This issue is thus closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Corrective Action Request No.17.</u></p> <p>Please indicate what action(s) would be undertaken to ensure that the CFLs are installed in locations where the utilization hours are relatively high.</p>	E.2.2.9	<p>In PoA section E.2 it is stated that “Where direct installation is not done, SSC-CPA shall educate the recipient to install the CFL in high-usage areas. Evidence for this shall be provided by SSC-CPA.”</p> <p>The methods of this education could include posters, printed hand-outs, verbal explanation by SSC-CPA representatives etc.</p>	<p>The justification provided is deemed acceptable. This issue is thus closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Clarification Request No. 13.</u></p> <p>Please provide evidence to prove that incentive from the CDM was seriously considered in the decision to proceed with the BLY-PoA.</p>	E.5	<p>The extracts from the Expenditure Finance Committee (EFC) document is provided as evidence. A chronology of CDM consideration is also included in revised PoA-DD section A.2.</p>	<p>The early and ongoing CDM consideration has been indicated in the revised PoA-DD and confirmed by the following documents:</p> <ul style="list-style-type: none"> Expenditure Finance Committee (EFC) document; <p>Summary records of discus-</p>

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			<p>sions of BEE with representatives of CFL manufacturers;</p> <p>Contract with the CDM consultant for development of PoA-DD as per AM0046;</p> <p>Contract with metering agency for monitoring activities related to the CDM based CFL scheme ‘Bachat Lamp Yojana’;</p> <p>National launch of Bachat Lamp Yojana by the Union Minister of Power, Government of India;</p> <ul style="list-style-type: none"> • Stakeholder consultation for BLY-PoA; and • BLY concept note and other supporting evidences available on the website - http://www.bee-india.nic.in/content.php?id=2 <p>Based on the above, this issue is thus closed.</p> <p><input checked="" type="checkbox"/></p>
<p>Clarification Request No. 14. Please provide the financial calculation sheets and related supporting documents to validate the investment barrier.</p>	E.5	The financial calculation sheet template is being submitted.	<p>The requested documents have been provided. This issue is thus closed.</p> <p><input checked="" type="checkbox"/></p>
<p>Clarification Request No. 15. Please submit the documentary evidences for the indicated other barriers – barriers at</p>	E.5.8	The price-list of Philips and Havells is provided as evidence. ELCOMA information is also submitted as evidence.	<p>The indicated documents in the response have been provided. The submitted documents sup-</p>

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household level and barriers at market level.			port the barriers. This issue is thus closed. <input checked="" type="checkbox"/>
<u>Clarification Request No. 16.</u> Please clarify how the BEE would ensure that the transmission & distribution (T&D) losses indicated in the CPA have used the most recent data published either by a national utility or an official governmental body (if available)..	E.6.1.2	The SSC-CPA shall source the transmission & distribution (T&D) losses from the most recent data published either by the DISCOM or an official governmental body. Where these are not available a default value of 10% is to be used. The BEE shall check the authenticity of such data from the Electricity Regulatory Commission etc.	The clarification provided is deemed acceptable. This issue is thus closed. <input checked="" type="checkbox"/>
<u>Clarification Request No. 17.</u> Please clarify how the BEE would ensure that the net to gross adjustment factor (NTG) used in the CPA is based on a lighting use survey from the same region and not older than 2 years.	E.6.1.2	All SSC-CPAs shall apply the default value of NTG which is 0.95. Refer revised PoA-DD section E.6.3	The clarification provided is deemed acceptable. This issue is thus closed. <input checked="" type="checkbox"/>
<u>Clarification Request No. 18.</u> As per the methodology, electricity savings from the efficient lighting equipment installed by the project activity shall be considered from the date of completion of installation of the equipment. Please clarify how the BEE would ensure the fulfillment of this criterion	E.6.1.2	The CFL installation and distribution process is expected to take 3-6 months to cover ~ 200,000 households. Hence the date of CFL installation is estimated as the actual date of installation / distribution for both : <ul style="list-style-type: none"> • Directly installed CFLs and • Distributed CFLs. The records of CFL distribution with dates of start and completion would be maintained by each SSC-CPA. On completion of CFL distribution in the entire SSC-CPA project area, the project implementer shall inform the BEE. The BEE as managing entity would verify the declared date by calling in for necessary supporting evidences from the CPA implementer. If the declared date is approved then this is taken as the	The clarification provided is deemed acceptable. Also, the PoA-DD has been revised including this justification. This issue is thus closed. <input checked="" type="checkbox"/>

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		date of CFL installation (and emission reduction crediting) in the SSC-CPA project. (refer PoA-DD Section E.7.2)	
<u>Corrective Action Request No.18.</u> Please indicate how the grid emission factor would be calculated. Whether it would be fixed ex-ante or updated ex-post?	E.6.2.1	Data for calculating the Grid Emission factor (GEF) will be sourced from the latest publicly available CO ₂ emission database by Central Electricity Authority (CEA) of India. The value used is indicated in the SSC-CPA after applying ‘Tool to calculate the Emission Factor for an electricity system’. Each SSC-CPA shall estimate the GEF value applied in the CPA-DD and fix the value ex-ante. The PoA-DD is revised to indicate this clearly in Annex 3 and other places.	It has been indicated in the revised PoA-DD that the grid emission factor would be calculated based on the combined margin approach as indicated in the methodology AMS.I.D. Also, it has been clarified that the emission factor would be fixed ex-ante. This issue is thus closed. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.19.</u> Please use the table format as provided in section E.6.3 of the PoA-DD template.	E.6.3.1	The table format has been corrected as per the PoA-DD template format.	The PoA-DD has been revised. This issue is thus closed. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.20.</u> Please correct the data unit of the parameter – O_i - Average daily operating hours of the lighting devices replaced by the group of ‘ i ’ lighting devices.	E.6.3.2 .2	The data unit - O_i - Average daily operating hours of the lighting devices is corrected to hours / day in PoA-DD section E.6.3.	The PoA-DD has been revised. This issue is thus closed. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.21.</u> Please include the parameter L_i - Rated average life for equipment type i	E.6.3.2 .3	The parameter L_i - Rated average life for CFL type i is already included in PoA-DD section E.6.3. The value is fixed ex-ante.	The PoA-DD has been revised. This issue is thus closed. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.22.</u> The inclusion of this parameter should be done in accordance with the methodology and tool applied. Also the spreadsheet for the calculation of the emission factor should be submitted.	E.6.3.2 .4	Refer response to CAR 18.	The inclusion of this parameter has been appropriately done in the revised PoA-DD. This issue is thus closed. <input checked="" type="checkbox"/>

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<p><u>Corrective Action Request No.23.</u> Please use the table format as provided in section E.7.1 of the PoA-DD template.</p>	E.7.1.1	The table format has been corrected as per the PoA-DD template format.	The PoA-DD has been revised. This issue is thus closed. <input checked="" type="checkbox"/>
<p><u>Corrective Action Request No.24.</u> Please include the parameter TD_y - Average annual technical grid losses (transmission and distribution) during year y.</p>	E.7.1.2	The parameter TD_y - Average annual technical grid losses (transmission and distribution) during year y is included in revised section E.7.1.	The inclusion of this parameter has been appropriately done in the revised PoA-DD. This issue is thus closed. <input checked="" type="checkbox"/>
<p><u>Corrective Action Request No.25.</u> Please include the parameter <i>Lamp distribution data</i>. Under this parameter the number of pieces of CFLs distributed, identified by the type and the date of supply; number and power of the replaced ICLs; data to unambiguously identify the recipient of the CFLs distributed under the CPA should be recorded. Also, please provide an extract of standardized data forms that would be used to compile this data.</p>	E.7.1.3	<p>The ‘Lamp distribution data’ viz. Date of CFL supply, Utility consumer number of CFL recipient households under the SSC-CPA is now included in PoA-DD section E.7.1 Other data are already present in the section E.7.1 viz:</p> <ul style="list-style-type: none"> • The number of pieces of CFLs distributed ($n_{i,CFL}$) and CFLtype ($P_{i,PJ}$); • number ($N_{Destroyed,y}$) and power ($P_{i,BL}$) of the replaced ICLs; <p>The extract of standardized data forms shall be part of the SSC-CPA Implementation manual.</p>	The inclusion of this parameter has been appropriately done in the revised PoA-DD. The SSC-CPA implementation manual has also been provided. This issue is thus closed. <input checked="" type="checkbox"/>
<p><u>Clarification Request No. 19.</u> Please clarify as to how the power rating of replaced ICLs will be recorded. If it is based on nameplate data then what will be done in case there is no wattage labelling on the ICL. Yes, this parameter has been included.</p>	E.7.1.3	Normally the nameplate data would be used, however where there is no wattage labelling visible on the ICL, then using a multi-meter, the resistance in ohms of the ICL to be replaced shall be compared against the resistance for the known ICL wattage of 40,60 and 100 W. Refer revised PoA-DD section E.7.1	The clarification provided is deemed acceptable. Also, the PoA-DD has been revised including this justification. This issue is thus closed. <input checked="" type="checkbox"/>
<p><u>Corrective Action Request No.26.</u> Once all the CFLs have been distributed, this parameter will be fixed thus would become a constant value independent from ‘y’. Please correct the parameter description accord-</p>	E.7.1.4	Parameter $N_{Destroyed}$ description revised in PoA-DD section E.7.1.	The PoA-DD has been revised. This issue is thus closed. <input checked="" type="checkbox"/>

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ingly.			
<p><u>Corrective Action Request No.27.</u> Please indicate the ex post monitoring survey in the monitoring plan in accordance with the methodology.</p>	E.7.1.5	<p>The parameters obtained from the ex-post monitoring survey are viz.</p> <ul style="list-style-type: none"> • High PF CFL life test report and test curves • Sample size of Monitoring Survey • Lamp Failure Rate for CFL type <i>i</i> in year <i>y</i> (fraction) • Number of CFLs of the group of “<i>i</i>” CFLs (e.g. 20W CFL) in operation during the first 12 months of distribution <p>The above are stated in PoA-DD section E.6.3 and E.7.1.</p>	<p>The PoA-DD has been revised indicating the ex-post monitoring survey parameters. This issue is thus closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Clarification Request No. 20.</u> Referred BLY administrative manual needs to be submitted.</p>	E.7.2.1	<p>The BLY Administration Manual for Managing Entity and SSC-CPA implementer are being provided to DOE.</p>	<p>The requested documents have been submitted. Therefore this issue is closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Clarification Request No. 21.</u> It has been indicated that when direct installation is not done, to be conservative CFL installation would be deemed 2 days after the date of distribution to household. Please clarify how it can be considered as appropriate.</p>	E.7.2.3	<p>Under the BLY scheme, a CFL is provided to the household consumer <i>in-lieu</i> of and ICL. It is thus expected that the consumer would install the CFL at the point where the ICL was in use.</p> <p>Normally, this would be done, before night-fall of the same day on which the CFL is distributed. Hence, CFL installation date would be deemed on the date of actual distribution to household.</p> <p>The crediting period however would start only when the declaration of completion in CPA project area is made by investor. The PoA-DD section E.7.2 is now revised.</p>	<p>The clarification provided is deemed acceptable. Further, also referring to the response to CR18 this issue can be closed.</p> <p><input checked="" type="checkbox"/></p>
<p><u>Corrective Action Request No.28.</u> Please indicate whether this person / entity is also considered a project participant.</p>	E.8.1.5	<p>This is indicated in PoA-DD section E.8.</p>	<p>The PoA-DD has been revised clarifying the situation. This issue is thus closed.</p> <p><input checked="" type="checkbox"/></p>

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<p>Clarification Request No. 22. As indicated that ODA funding is involved from Germany in the BLY-PoA, please provide an affirmation that such funding does not result in a diversion of ODA.</p>	<p>F.2</p>	<p>For the BLY PoA, the German bilateral programme provides technical support like access to CDM consultancy support only. The bilateral programme does not provide any BLY PoA implementation support nor are the funds used to purchase CERs resulting from the BLY scheme.</p> <p>The evidence to justify the above is being provided:</p> <ul style="list-style-type: none"> • The extract of the Memorandum of Understanding for the Bilateral programme • BLY scheme EFC approval document 	<p>The referred documents have been provided. Based on the same it is clarified that there is no diversion of ODA involved in the BLY-PoA. This issue is thus closed.</p> <p><input checked="" type="checkbox"/></p>
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Table 3 Unresolved Corrective Action and Clarification Requests (in case of denials)

Clarifications and / or corrective action requests by validation team	Id. of CAR/CR	Explanation of Conclusion for Denial
-	-	-

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Annex 2: Information Reference List

Information Reference List (IRL)

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IRL No.	Document or Type of Information	Date of document
1.	PoA-DD for GSP http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/WOW1YYO9VEFAM3D6H2GJ4BZ4AW9YJL/view.html	22-07-2009
2.	UNFCCC homepage http://www.unfccc.int	-----
3.	Approved Small Scale baseline and monitoring methodology AMS II.J, Version 03	Valid from 16 May 2008 onwards
4.	<p>On-site interviews during the period 26-08-2009 to 29-08-2009 and subsequently on 29-09-2009 and 30-09-2009 by TÜV SÜD Validation team :</p> <p>Sandeep Kanda TUV SUD Industrie Service GmbH Stephan Hild TUV SUD Industrie Service GmbH Bratin Roy TUV SUD South Asia V. Vijayanand TUV SUD South Asia</p> <p>Interviewed persons:</p> <p>Ajay Mathur Director General, Bureau of Energy Efficiency (BEE) Saurabh Kumar Secretary, BEE Vandana Thakur Manager-BLY, BEE Vijeta Jangra Project Engineer, BEE S. Ramaswamy Senior Technical Specialist, GTZ Manu Maudgal Technical Specialist, GTZ Caroline Van Tilborg C-Quest Capital (CQC) Bhaskar Natrajan C-Quest Capital Green Ventures Private Limited Jyotsna Goel C-Quest Capital Green Ventures Private Limited Ang Kong Nian CQC Malaysia Private Limited P. R. Reddy Director (Finance), AP Distribution Co. Ltd. (APDISCOM) S. S. Sastry Superintending Engineer, APDISCOM J. Sreenivasulu Divisional Engineer (DE), AP Central Power Distribution Co. Ltd. (AP-CPDCL) G. Parvatam DE-Operations, Habsiguda, AP-CPDCL Abhay Gopal Bhatt Professor, Indian Statistical Institute</p>	-----

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IRL No.	Document or Type of Information	Date of document
5.	IS 15111: Indian Standard for self ballasted lamps for general lighting services, Part 2 performance requirement.	2002
6.	Model Tripartite Agreement under the Bachat Lamp Yojana between Bureau of Energy Efficiency, DISCOM and Project Developer	-----
7.	Energy Conservation Act 2001	01-10-2001
8.	National Action Plan on Climate Change, Government of India,	-----
9.	India Latitude and Longitude (Downloaded from http://www.mapsofworld.com/lat_long/india-lat-long.html)	-----
10.	Compact Fluorescent Lamps description document from: www.life-support-technologiesllc.com/CFL.html)	-----
11.	Document on Barriers to technology diffusion: The case of compact fluorescent lamps (downloaded from http://www.iea.org/textbase/Papers/2008/cd_energy_efficiency_policy/4-Lighting/4-fluorescent.pdf)	-----
12.	Supplementary material for Rajya Sabha question diary number S3592 for answer	08-03-2006
13.	EFC MEMORANDUM of Bachat Lamp Yojana (BLY) & Demand Side Management (DSM) Implementation scheme	28-05-2007
14.	Expenditure Finance Committee Sanction letter	20-11-2007
15.	National launch of Bachat Lamp Yojana by the Union Minister of Power, Government of India	25-02-2009
16.	Document from the website of ministry of power http://pib.nic.in/release/release.asp?relid=47970&kwd for National launch of BLY	-----
17.	Chapter 8 on electricity utilisation (http://www.cea.nic.in/power_sec_reports/general_review/0405/ch8.pdf , pp 171)	-----
18.	Document downloaded from http://news.bbc.co.uk/2/hi/science/nature/5128478.stm	29-06-2006
19.	Letter from Electric Lamp And Component Manufacturers' Association Of India (ELCOMA) on trend of CFL use and CFL penetration in residential sector in India	09-06-2009
20.	All India Electricity Statistics, General Review 2006 indicating the electricity usage for lighting, Central Electricity Authority (CEA)	2006
21.	Presentation at ECO-ASIA CFL workshop – “An Overview of India’s CFL Programs”, International Institute for Energy Conservation (IIEC) – India	25-11-2007
22.	Review of the Nashik Pilot CFL Program of Maharashtra State Electricity Distribution Company Limited	Dec. 2007

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23.	Registered CFL distribution CDM projects in India – 1754, 2457, 2476, 2709	-----
24.	Central Electricity Authority statement showing estimated average rates of electricity (updated upto 31.03.2009)	-----
25.	Document on Restructured Accelerated Power Development and Reforms Programme (Downloaded from http://72.167.37.52:8090/rapdrp/)	-----
26.	CFL price-lists of various suppliers: http://www.bajaelectricals.com/Compact-Fluorescent-Lamps-c-73.aspx ; http://www.havells.com/PriceList.aspx ; and Price list of Philips Lighting India (obtained through email correspondence on 29-06-2009)	-----
27.	Financial Calculations Excel Sheet confidential	-----
28.	Bachat lamp Yojana Managing Entity administration Manual	-----
29.	Bachat lamp Yojana CPA implementation Manual	-----
30.	Application form for Empanelment of investors under the Bachat Lamp Yojana	-----
31.	IS 418 Indian Standard Tungsten Filament lamps for domestic and similar general lighting purposes (4th Revision)	-----
32.	Database 2G080925_for publishing and User_guide_ver4 (http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm)	-----
33.	CFL lamp expert report concerning data on low power factor CFLs & high power factor CFLs, observation on the technical aspects and suggestion	09-09-2009
34.	Document from Ministry of Environment and Forests (2006): S.O.1533(E),[14/09/06] - Environmental Impact Assessment Notification. Source: (http://envfor.nic.in/legis/eia/so1533.pdf)	14-09-2006
35.	Document on Fact Sheet Mercury (downloaded from http://www.energystar.gov/ia/partners/promotions/change_light/downloads/Fact_Sheet_Mercury.pdf)	-----
36.	Report of the task force on environmentally sound management of mercury in fluorescent lamps	May 2008
37.	Guidelines For Environmentally Sound Mercury Management In Fluorescent Lamp Sector (Downloaded from http://www.cpcb.nic.in/upload/NewItems/NewItem_134_Final%20Technical%20GUIDELINES.pdf)	Nov 2008
38.	An overview of the regulatory and management issues necessary for a successful CFL programme, Centre for Science and Environment (CSE), Study published in Down To Earth Magazine	Jan. 2009

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IRL No.	Document or Type of Information	Date of document
39.	Various advertisements for BLY stakeholder Consultations	2009
40.	Consolidated report on National Stakeholder Consultation CDM Programme Of Activities Based Bachat Lamp Yojana	April 2009
41.	Letter of Approval (LoA), No. 4/12/2009-CCC from Indian DNA (host country) issued to BEE for the BLY-PoA	05-09-2009
42.	Modalities of Communication	11-11-2009
43.	Final PoA-DD for the BLY-PoA, Version 09	09-12-2009
44.	Final CPA-DD template and financial template for the BLY-PoA	-----
45.	Final real case CPA-DD under the BLY-PoA, Version 09	09-12-2009
46.	Summary records of discussions of BEE with representatives of CFL manufacturers	04-06-2007
47.	Summary records of discussions of BEE with representatives of CFL manufacturers	11-06-2007
48.	Contract with the CDM consultant (Perspectives GmbH) for development of PoA-DD as per AM0046	25-07-2007
49.	Contract with metering agency (Joshi Electronics and Electricals Private Limited) for monitoring activities related to the CDM based CFL scheme 'Bachat Lamp Yojana'	25-03-2008
50.	Email correspondence indicating shifting of PoA-DD from the small scale methodology AMS.II.C to the small scale methodology AMS.II.J.	29-05-2009