SSC PoA Validation Report

PEAR Carbon Offset Initiative, Ltd.

“Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries”

Project No. JQA-C0238

(No. 1812000443-445)

1 May 2014

JAPAN QUALITY ASSURANCE ORGANIZATION

Report Title:	PoA Title:
SSC PoA Validation Report	Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries
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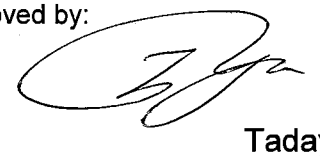
Coordinating/Managing Entity: Green Project W.S.T® Limited (W.S.T)	Project Participants: - Green Project W.S.T® Limited (W.S.T) - PEAR Carbon Offset Initiative, Ltd.
Approved by:  Tadayuki Yano	Client: PEAR Carbon Offset Initiative, Ltd.

Summary:

This is the Validation Report for the small-scale (SSC) programme of activities (PoA) "Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries". Green Project W.S.T® Limited (W.S.T) is the Coordinating/Managing Entity (CME) of the proposed PoA. PEAR Carbon Offset Initiative, Ltd. (PEAR) is the project participant (PP) of the proposed PoA.

The purpose of the PoA is to promote energy and water saving in the garment and textile industry of Bangladesh through optimizing the textile dyeing process that is the most water and energy consuming process in textile and garment factories. The approved methodology, AMS-II.D. "Energy efficiency and fuel switching measures for industrial facilities" (Version 12.0), is applied to CPAs included in the PoA.

JQA, as a DOE, has performed the validation on the basis of the relevant decisions of UNFCCC, Kyoto Protocol, COP/MOP and CDM-EB under the contract with PEAR.

Through the resolution of 2 CARs and 35 CLs, JQA confirms that the proposed PoA meets all the relevant UNFCCC and Host Party requirements. JQA determines that the project activity is valid as a CDM programme of activities (PoA).

Validation Team:	Technical Reviewer:
Team Leader: Hiroshi Motokawa Member: Akiko Furuya Member (Technical Expert): Hiroshi Kobayashi	Tadashi Yoshida

Abbreviations

AMS	Approved Small-scale Methodology
BGMEA	Bangladesh Garment Manufacturers and Exporters Association
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM-EB	CDM Executive Board
CER	Certified Emission Reduction
CL	Clarification Request
CM	Combined Margin
CME	Coordinating / Managing Entity
COP	Conference of the Parties
COP/MOP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
CPA	Component Project Activity
CPA-DD	Component Project Activity Design Document
CVC	Chief Value Cotton
DEPZ	Dhaka Export Process Zone
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
EIA	Environmental Impact Assessment
ETP	Effluent Treatment Plant
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Society for International Cooperation)
GK	Grameen Knitwear
GWP	Global Warming Potential
ISO	International Organization for Standardization
JQA	Japan Quality Assurance Organization
LDCs	Least Developed Countries
LoA	Letter of Approval
LSC	Local Stakeholder Consultation
MoC	Modalities of Communication
MoU	Memorandum of Understanding
NCV	Net Calorific Value
NGO	Non-governmental Organization
ODA	Official Development Assistance
O&M	Operation and Maintenance
OM	Operating Margin
OA	On-site Assessment
PEAR	PEAR Carbon Offset Initiative, Ltd.
PDD	Project Design Document
PoA	Programme of Activities
PoA-DD	Programme of Activities Design Document
PP	Project Participant
QA/QC	Quality Assurance and Quality Control
RFT	Right-First-Time
SD	Sustainable Development
UNFCCC	United Nations Framework Convention on Climate Change
UPGDC	United Power Generation and Distribution Company
VVS	CDM Validation Verification Standard (Version 06.0)

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1. INTRODUCTION

Japan Quality Assurance Organization (hereinafter referred to as JQA) has performed the validation of the PoA "Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries". The Coordinating/ Managing Entity (CME) for the proposed PoA, Green Project W.S.T® Limited (hereinafter referred to as W.S.T) (Bangladesh), plans to promote energy and water saving through optimizing the textile dyeing process that is the most water and energy consuming process in textile and garment factories. PEAR Carbon Offset Initiative, Ltd. (hereinafter referred to as PEAR) (Japan) also participates in the PoA as a project participant (hereinafter PP). This report summarizes the findings obtained through the validation process and the validation opinion of JQA.

1.1. Objective

Validation is a thorough and independent assessment of the proposed PoA against the applicable CDM requirements defined by the UNFCCC, the Kyoto Protocol, CDM Modalities and Procedures and relevant decisions by COP/MOP and CDM-EB. According to Para 20 of VVS, in carrying out its validation work, the DOE shall:

(a) Determine whether the proposed project activity complies with the requirements of paragraph 37 of the CDM M&Ps, the applicability conditions of the selected methodology and guidance issued by the Board;

(b) Assess the claims and assumptions made in the project design document (PDD). The evidence used in this assessment shall not be limited to that provided by the project participants.

1.2. Scope

The scope of the assessment is defined by the relevant standards including applied methodologies and tools, procedures, guidelines, clarifications, forms and information notes issued by the CDM-EB. The project documentation prepared by the CME/PP include:

- CDM-SSC-PoA-DD "Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries" (Version 3.0, 28/11/2012 and Version 7.0, 21/04/2014) (hereinafter "PoA-DD") **(Ref. 1)**
- Specific CDM-SSC-CPA-DD "Energy and Water Saving Promotion for Textile Dyeing Process of Grameen Knitwear Textile and Garment Factory in Bangladesh" (Version 2.0, 28/11/2012 and Version 7.0, 21/04/2014) (hereinafter "specific CPA-DD") **(Ref. 2)**

The PoA-DD and the CPA-DD are reviewed to assess their conformity with:

- UNFCCC;
- Kyoto Protocol;
- Clean Development Mechanism Validation and Verification Standard (VVS) (Version 06.0);
- Clean Development Mechanism Project Standard (PS) (Version 06.0);
- AMS-II.D. “Energy efficiency and fuel switching measures for industrial facilities” (Version 12.0) (Sectoral Scope: 4);
- AMS-I.D. “Grid connected renewable electricity generation” (Version 17.0)
- “Tool to calculate the emission factor for an electricity system” (Version 4.0)
- Standard for the application of the global warming potentials to clean development mechanism project activities and programme of activities for the second commitment period of the kyoto protocol (Version 01.0)
- Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities (Version 03.0);
- Standard for sampling and surveys for CDM project activities and programme of activities (Version 04.0);
- Glossary: CDM Terms (Version 07.0);
- Clean Development Mechanism Project Cycle Procedure (Version 06.0);
- General guidelines to SSC CDM methodologies (Version 20.0);
- Guidelines on the demonstration of additionality of small-scale project activities (Version 9.0);
- Guidelines for demonstrating additionality of microscale project activities (Version 05.0);
- Guidelines for sampling and surveys for CDM project activities and programme of activities (Version 03.0);
- Guidelines on assessment of de-bundling for SSC project activities (Version 03.0);
- Guidelines for completing the programme design document form for small-scale CDM programmes of activities (Version 03.0);
- Guidelines for completing the component project design document form for small-scale component project activities (Version 01.0);
- F-CDM-SSC-PoA-DD - Programme design document form for small-scale CDM programmes of activities (Version 02.0);
- F-CDM-SSC-CPA-DD - Component project design document form for small-scale component project activities (Version 02.0); and
- Relevant decisions of COP/MOP and CDM-EB.

Note that the scope of this validation does not involve the validation of “Energy and Water Saving Promotion for Textile Dyeing Process of Grameen Knitwear Textile and Garment Factory in Bangladesh” (CPA-1) for inclusion to the proposed PoA. The validation of CPA-1 is covered by a separate validation report, namely, “SSC CPA Validation Report for “Energy and Water Saving Promotion for Textile Dyeing Process of Grameen Knitwear

Textile and Garment Factory in Bangladesh" **(Ref. 4)**, prepared by JQA.

1.3. PoA Description

The summary of the proposed PoA is given below:

CME:	Green Project W.S.T® Limited (W.S.T) (Bangladesh)
PP:	PEAR Carbon Offset Initiative, Ltd. (PEAR) (Japan)
Non-Annex I Party:	Bangladesh (22/10/2001: Kyoto Protocol ratified)
Annex I Party:	Japan (04/06/2002: Kyoto Protocol ratified)
Geographical boundary:	Bangladesh
Technology:	Energy and water savings by the optimization of dyeing process
Start date of the PoA:	01/12/2012 (the data of publication of the PoA-DD for global stakeholder consultation)
Length of the PoA:	28 years and 0 month

1.4. Validation Team and Technical Reviewer

The manager of CDM/JI Assessment Division has organized the validation team as shown in Table 1 based on the JQA CDM Quality Manual. The certificates of the validation team members and the technical reviewer are attached (Appendix B). The expertise and experience of the assessors and the technical reviewer are also attached to this report (Appendix C).

Table 1 Validation team and Technical Reviewer

Name	Qualification[1)]	Task [2)]	Coverage of Technical Area	On-site Visit	Local Experience
Hiroshi Motokawa	TLA	TL	-	-	✓
Akiko Furuya	A	TM	-	✓	✓
Hiroshi Kobayashi	-	TE	✓	✓	✓
Tadashi Yoshida	TLA	TR	✓		✓

1) TLA: Team Leader Assessor; A: Assessor

2) TL: Team Leader; TM: Team Member; TE: Technical Expert; TR: Technical Reviewer

The validation team and technical reviewers cover Sectoral Scope 4 defined by the applied methodology AMS-II.D. and the relevant Technical Area 4.6.

The roles and responsibilities of the team leader are to prepare the validation plan including desk review, site-visit and documentation, and to manage the validation activities of the team. The team leader is responsible for the validation opinion and conclusion by the assessment team.

The roles and responsibilities of the team member is to implement the desk review and/or the site-visit including the investigation and collection of background information and

interview with the CME/PP and stakeholders, and also to indicate potential Corrective Action Request (CAR), Clarification Request (CL) and/or Forward Action Request (FAR) based on the information obtained through the desk review and/or the site-visit.

The roles and responsibilities of the technical expert are to provide technical support to the validation team as a member of the assessment team.

The on-site assessment (OA) was implemented by the team members on 05-10/01/2013, and after the OA the CDM validation checklist including CARs/CLs was submitted to CME/PP on 21/01/2013.

2. VALIDATION PROCESS

The validation process basically consists of the following five steps:

1) Document review
2) Follow-up actions (e.g., site-visit, etc.)
3) Resolution of Clarifications and Corrective Action Requests
4) Draft Validation Report
5) Internal Quality Control

At the commencement of validation, the PoA-DD and the specific CPA-DD are made publicly available on the UNFCCC website. When JQA receives any public comments, CME/PP and the CDM secretariat are notified that public comments are received. Any comments received are uploaded to the UNFCCC website.

In the validation, Appendix A "PoA Validation Checklist" is prepared by JQA based on "CDM Validation and Verification Standards (VVS)" (Version 06.0) and "Guidelines for completing the programme design document form for small-scale CDM programmes of activities" (Version 03.0). Appendix A is composed of the following tables:

Table 1: Comprehensive Checklist for Validation
Table 2: Validation Requirements and CARs/CLs/FARs
Table 3: PoA-DD Requirements and CARs/CLs/FARs
Table 4: Resolution of CARs/CLs

The purpose of the Validation Checklist is:

- To organize, detail and clarify the requirements with which PoA is expected to meet; and
- To ensure a transparent validation process by inducing the auditor to document how every requirement is validated and which conclusions have been reached.

Issues and/or findings identified in the process are indicated as "CAR", "CL" and/or "FAR" in the CDM Validation Checklist. The criteria for CAR, CL and FAR, in accordance with Para 25-27 of VVS (Version 06.0), are as follows:

CAR (Corrective Action Request): The DOE shall raise a corrective action request (CAR) if one of the following situations occurs:

(a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable, verifiable and additional emission reductions;
(b) The applicable CDM requirements have not been met;
(c) There is a risk that emission reductions cannot be monitored or calculated.

CL (Clarification Request): The DOE shall raise a clarification request (CL) if

information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

FAR (Forward Action Request): The DOE shall raise a forward action request (FAR) during validation to identify issues related to project implementation that require review during the first verification of the project activity. The DOE shall not raise a FAR that relates to the CDM requirements for registration.

All the CARs and/or CLs resolved or close out through the response from CME/PP are described in Table 4 of Appendix A.

2.1. Document review

The main purposes of the document review are as follows:

- Confirm the completeness of the PoA-DD in accordance with “Guidelines for completing the programme design document form for small-scale CDM programmes of activities” (Version 03.0) with reference to “Glossary: CDM Terms” (Version 07.0);
- Assess the conformity of the proposed PoA with all relevant requirements;
- Gather information relevant to the PoA from independent sources to determine whether the information provided by CME/PP is reliable and credible; and
- Identify issues to be confirmed through site-visit.

The main points to be checked through the document review are summarized below.

- Appropriateness of the baseline and monitoring methodologies applied to CPAs under the proposed PoA including qualification within the thresholds of small-scale project activities.
- Transparency and conservativeness of the assumptions for the baseline.
- Technological, political, socio-demographic and environmental and legal aspects and trends relevant to the PoA.
- Additionality of the PoA, including compliance with requirements applicable for small-scale and/or microscale project activities.
- Appropriateness of formulae and accuracy of calculation.
- Responsibilities and authorities for monitoring activities for PoA/CPA including sampling plan and quality control and quality assurance system.
- Debundling for small-scale project activity.
- Eligibility criteria for inclusion of a CPA under the PoA and the implementation and management system for the PoA.
- Consistency between the PoA-DD and the specific CPA-DD.

2.2. Follow-up actions

The follow-up actions include site-visit to the project site and interview with local stakeholders such as CME/PP, CPA implementer, local residents, government officials,

industrial sectors, etc. Information to be collected in this process includes:

- Technologies/measures adopted by a CPA in the proposed PoA;
- Appropriateness of the project boundary including GHG emission sources and geographical boundary;
- Appropriateness of the baseline scenario and demonstration of additionality;
- Development and implementation of management and monitoring plan; and
- EIA and local stakeholder consultation.

2.3. Resolution of Clarification Requests and Corrective Action Requests

JQA raises CARs/CLs/FARs based on the result of the document review and the follow-up actions. CME/PP shall resolve all CARs and CLs through provision of additional documentary evidences and/or revision of the PoA-DD as appropriate.

2.4. Draft Validation Report

The draft Validation Report is prepared based on the results of the document review and the follow-up actions and the subsequent resolution of CARs/CLs. To ensure transparency, the final decisions are confirmed by using the PoA Validation Checklist.

2.5. Internal Quality Control

Draft Validation Report and Validation Checklist are assessed by technical reviewers in line with the latest Procedure for Internal Quality Control of JQA. The appropriateness of the draft conclusions on the validation of the PoA and its procedures are reviewed from technical points of view. The technical reviewer informs the review results to the validation team. The validation team responds to the technical reviewer's comments and revises the Draft Validation Report and Validation Checklist as necessary. The results of the review are informed to the Manager of CDM/JI Assessment Division.

The Manager of CDM/JI Assessment Division reports the review result to the Senior Executive of JQA. Finally, the Senior Executive determines whether the proposed PoA is valid as a CDM programme of activities.

3. VALIDATION FINDINGS

Through the Document Review and the Follow-up Actions, 2 CARs and 35 CLs were raised. Major CARs/CLs and responses by CME/PP are summarized in this chapter. Details of resolution of each CAR/CL are also summarized in Table 4 of Appendix A.

3.1. Global stakeholder consultation

The PoA-DD **(Ref. 1)** and CPA-DD for CPA 1 **(Ref. 2)** were made publicly available on the UNFCCC website on 01/12/2012. Comments by Parties, stakeholders and NGOs were invited during 01/12/2012 - 30/12/2012. Since no comment was received through the public comment inviting period, due account of the comments received during the validation process is not applicable to the proposed PoA. Therefore, Section 7.5. of VVS are not applicable.

3.2. Approval and authorization

Letter of Approval (LoA) signed by DNA of Bangladesh, Ref. DoE/Int.Con./CDM/2011/06/12, was issued on 16/03/2014 **(Ref. 5)**. W.S.T provided the LoA to JQA on 18/03/2014. The approval date of the PoA by the DNA of Bangladesh is 09/03/2014. The DNA of Bangladesh unconditionally confirms:

- DNA of Bangladesh has approved "Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries" on 09/03/2014.
- The government of Bangladesh has ratified the Kyoto Protocol on 22/10/2001.
- This is a voluntary participation in the proposed CDM project activities.
- The project contributes to sustainable development of Bangladesh.
- Green Project W.S.T® Limited (W.S.T) is the Coordinating/Managing Entity (CME) of the programme.

JQA confirms that the signatory of the LoA is consistent with the contact person of DNA shown in the UNFCCC website.[1] Therefore, there is no doubt of its authenticity.

Letter of Approval signed by DNA of Japan, No. 1404047, was issued on 04/04/2014 **(Ref. 6)**. W.S.T provided the LoA to JQA on 17/04/2014. The DNA of Japan unconditionally confirms:

- Japan has accepted the Kyoto Protocol on 04/06/2002.
- The Government of Japan approves the project “Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries”.
- The Government of Japan authorizes voluntary participation of PEAR Carbon Offset Initiative, Ltd. in the project.

JQA has cross-checked the LoA with the information on the website of the Ministry of the Environment[2] and confirms that the PoA is included in the list of the approved project by the

[1] http://cdm.unfccc.int/DNA/index.html
[2] http://www.env.go.jp/earth/ondanka/mechanism/gov-approval/list.pdf

DNA of Japan as of the end of December 2012. In addition, by reviewing the LoAs of other Japanese CDM project activities already registered, the validation team confirms that there is no doubt about the authenticity of the LoA for the proposed project activity obtained from PEAR Carbon Offset Initiative, Ltd., because the LoA has the quite same form, context and signatures as the other LoAs.

JQA confirms that W.S.T is approved/authorized as CME, and PEAR is approved/authorized as PP. Therefore, the proposed PoA satisfies Section 11.9. of PS and Section 7.6. and 7.7. of VVS.

3.3. Contribution to sustainable development

As described in A.1 of the PoA-DD, the proposed PoA will contribute to sustainable development of Bangladesh in the following aspects:

- The project will contribute to ensure future water security in Bangladesh through reducing groundwater consumption for textile dyeing process significantly.
- The project will contribute to ease land subsidence having occurred in Dhaka area, as the reducing consumption of groundwater is an indispensable way for preventing the disfigurement of land and its calamitous effects.

As described in Section 3.2, JQA confirms the validity of LoA from Bangladesh DNA. The LoA clearly states that “the project contributes to sustainable development of Bangladesh". Therefore, the proposed PoA satisfies Section 7.8. of VVS.

3.4. Modalities of communications

JQA obtained the Modalities and Communication (hereinafter the MoC) statement from W.S.T, the CME of the PoA, on 23/10/2013 **(Ref. 7)**. JQA validates the corporate identity of all PPs and focal points included in the MoC statement, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories through directly checking evidence for corporate and personal identity as per Para 54 (a) of VVS. JQA also confirms that the MoC statement is correctly completed in accordance with the latest MoC form.

JQA confirms that the MoC statement complies with all relevant requirements and satisfies Section 7.9. of the VVS.

3.5. Project design document

JQA confirms that the latest version of F-CDM-SSC-PoA-DD (Version 02.0) is used for completion of the PoA-DD. By using Table 3 (PoA-DD Requirements and CARs/CLs/FARs) of the CDM Validation Checklist, JQA has assessed whether the PoA-DD complies with the relevant requirements provided in “Guidelines for completing the programme design document form for small-scale CDM programmes of activities” (Version 03.0).

Regarding the description in the PoA-DD, JQA raised CLs31-32 as follows:

CL31: In Part I, A.3. of the PoA-DD, it is described that: "Textile and Garment factories in Bangladesh are ...participants of the PoA." Regarding this description, the CME/PP are requested to clarify whether the textile and garment factories are project participants of the PoA, which is necessary to be authorized by the DNA of a Party involved.

Resolution: The description is revised to “Textile and Garment factories in Bangladesh are the operators and implementers of CPAs under the PoA. However, they are not required to be project participants (as per Annex 29 to EB47 Report, paragraph 6, “the operators of individual CPAs are not required to be project participants”)”.

CL32: A single shortened form for "Green Project Water Saving Technology" (either "W.S.T" or "Green Project W.S.T") is to be used throughout the PoA-DD to avoid confusion.

Resolution: Only “The Green Project W.S.T®” is used in the revised PoA-DD.

Through the resolution of these CLs, JQA confirms that the PoA-DD complies with F-CDM-SSC-PoA-DD (Version 02.0) and “Guidelines for completing the programme design document form for small-scale CDM programmes of activities” (Version 03.0) and thus satisfied requirements in Section 7.10. of VVS.

3.6. Description of project activity

JQA has reviewed Part I, A.2 of the PoA-DD and also conducted physical site inspection on 05-10/01/2013 to check whether the description of the proposed PoA is accurate, complete and provides clear understanding of the proposed PoA.

Through the review of the publicly available information[3] and interview with the people in dyeing industry and a university professor during the on-site assessment, JQA confirms that the background of the PoA described in Section A.2 of the PoA-DD, namely, the serious depletion of water and energy resources caused by the fast-growing textile and garment industry of Bangladesh, is correct.

Under the circumstances, the proposed PoA seeks to promote energy and water savings in dying process through introduction of the technologies and know-how promoted by W.S.T, which is the CME of the proposed PoA. The PoA is a voluntary action by W.S.T with the vision of promoting the water and energy saving technologies in textile and garment industry of Bangladesh. W.S.T will directly introduce its technologies and know-how to textile and garment factories, and also collect and archive data and information in order to implement the project as a CPA under the PoA.

[3] “Conservation Pays Off for Bangladeshi Factories”, 21/03/2013, New York Times, http://www.nytimes.com/2013/03/22/business/energy-environment/conservation-pays-off-for-bangladeshi-factories.html?pagewanted=all
“Best Practices for Textile Mills to Save Money and Reduce Pollution in Bangladesh”, December 2012, Natural Resources Defense Council (NDRC)
http://www.nrdc.org/international/cleanbydesign/files/cbd-textile-mills-best-practices-bangladesh.pdf

As described in Part I, A.6. of the PoA-DD, the technologies and know-how promoted by W.S.T includes the following three components, dyeing process optimization, cold brand scouring and yarn optimization (optional). The details of each technology/know-how are described below.

1) Dyeing process optimization

Dyeing is a batch process and its water and energy consumption is determined by 'dyeing recipe', which defines type and proportion of dyestuff/chemical applied to achieve the desired color and shade, and conditions for application of each dyestuff/chemical such as temperature and time, sequence of application of the dyestuff/chemical and liquor conditions. A dyeing recipe can be visually translated into 'dyeing chart' as presented in Figure 5 - Figure 21 in Part I, A.6. of the PoA-DD. A dyeing recipe is prepared for each order so as to achieve the desired color and shade by a firmly established set of instructions. If such recipe, called 'Right-First-Time (RFI)', is developed, the same recipe is applied to plural batches in order to dye the ordered amount of textile or garment.

W.S.T is aiming to reduce water and energy consumption in dyeing process through the introduction of different types of dyestuff that enables lower processing temperature, shorter processing time and/or simplified set of steps. Although such dyestuff has been widely used in developed nations where energy/water cost is high and environmental regulations are strict, it is rarely disseminated in Bangladesh. W.S.T will provide technologies and know-how to develop recipes without compromising the clients' requirements about color and shade.

As noted from Part I, A.6. of the PoA-DD, W.S.T will use various dyes/methods as summarized in Table 2. Since each alternate dye/method has pros and cons, the most appropriate measure will be technically assessed and determined by W.S.T taking the clients' colour/shade requirements into consideration.

Table 2 Planned change in dyestuff by the PoA

Fiber	Dyestuff currently/traditionally used	Dye/method introduced by PoA
Cellulose (Cotton, Viscose, etc.)	Reactive dye	Direct dye
		New generation reactive dye
		Vat dye
		Sulfur + reactive dye
CVC	Disperse dye (polyester) + Reactive dye (cotton)	One bath dye
		Scour dye
Polyester	Disperse dye	Cationic dye (with cationic dye able polyester)

As noted from Figure 5 - Figure 21 in Part I, A.6. of the PoA-DD, the alternative dyeing method introduced by the PoA will generally completed in shorter time and/or lower temperature. Therefore, as noted from Table 1 - Table 3 in Part I, A.6. of the PoA-DD, water, electricity and steam consumption will also be reduced compared to the traditional

dyeing process.

2) Cold brand scouring

As described in Part I, A.6. of the PoA-DD, scouring is the pretreatment process conducted before dyeing to make the condition of fabric suitable for bleaching/dyeing. The main objectives of scouring are as follows:

- To remove natural and added impurities from fabric (oil, wax, fat, hand dust, etc.)
- To make fabric highly absorptive condition to achieve uniform dye and chemical uptake

Hot brand scouring is the traditional scouring process for cellulose (cotton, viscose, etc.) done under high temperature/pressure using caustic soda as scouring agent. The cold brand scouring can be conducted at lower temperature with different type/combination of scouring agent. As noted from Figure 5 - Figure 15 in Part I, A.6. of the PoA-DD, the cold brand scouring is conducted at 40-60^{o}C, while the hot brand scouring is conducted at 100-110^{o}C. Therefore, the steam consumption at dyeing machines will be reduced by the introduction of cold brand scouring and thus energy savings are achieved. Note that since scouring method could influence on the subsequent dyeing process, the choice of cold brand scouring or hot brand scouring will be made taking the dyeing process optimization, described in 1) above, into consideration.

3) Yarn optimization

Apart from the dyeing process optimization and cold brand scouring, the yarn optimization for cotton will be introduced to only capable CPA factories. The main objective of yarn optimization is to avoid 'bio-polishing' or 'enzyme wash' that is implemented in order to improve the quality of fabric made from low to medium quality yarn by removing micro fibers (hairs, fuzz or pills) by enzyme attack (see Figure 1 below). The 'bio-polishing' or 'enzyme wash' not only consumes additional water and heat for its process, but also causes respiratory damage to factory workers from micro dust suspended in the air.

Yarn optimization includes the replacement of low to medium quality yarn with high quality yarn such as compact yarn with low TPI (twist per inch) (see Figure 2 below) and super combed spun yarn of long staple fibre. Since the fabric made from the high quality yarn has less hairs, fuzz or pills, 'bio-polishing' or 'enzyme wash' is not necessary. Although the yarn optimization reduces water and energy consumption in dyeing process, higher yarn cost discourage the garment and textile factories from the use of high quality yarn. In Bangladesh, many textile and garment factories have their own wells and pump groundwater up free of charge. In addition, fuel and electricity are greatly subsidized by government in Bangladesh and thus remain in relatively low price.[4] Therefore, water and energy savings achieved by the avoidance of "bio-polishing" or "enzyme wash" provide little economic incentive to the garment and textile factories in Bangladesh.

[4] http://www.iisd.org/gsi/sites/default/files/ffs_stakeholders_bangladesh.pdf

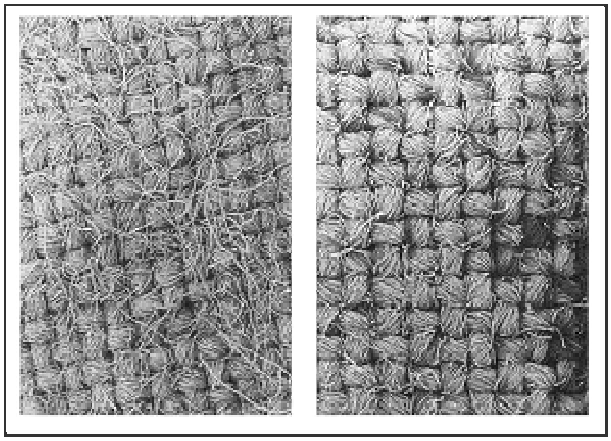

Figure 1 Removal of micro fibre from fabric surface by enzyme wash[5]

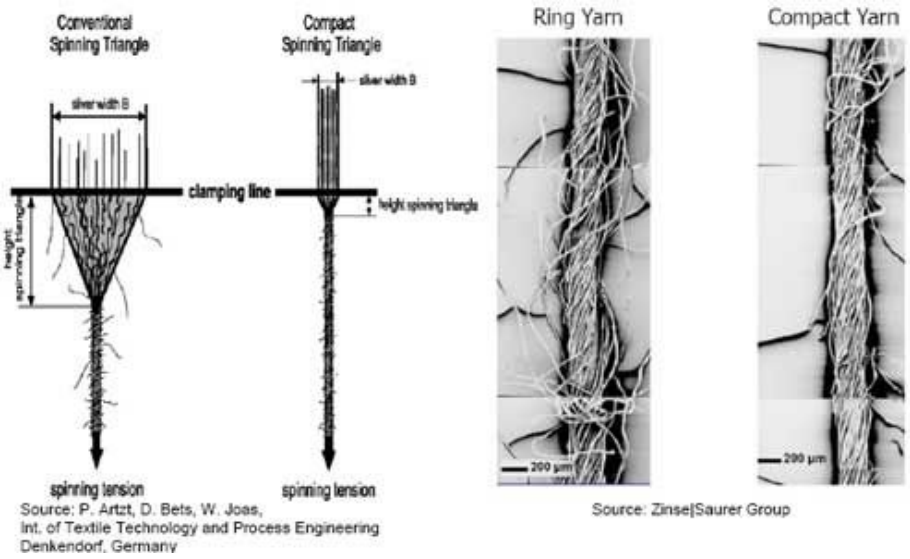

Figure 2 Difference between compact yarn and conventional yarn[6]

W.S.T will introduce yarn optimization together with dyeing process optimization and cold brand scouring when clients' requirements for quality as well as cost are satisfied.

Note that the dyeing process optimization, cold brand scouring and the yarn optimization promoted by the proposed PoA will not physically/mechanically change dyeing machines but will change the dyeing process with different dyestuff/chemicals, process and yarn.

Regarding the technologies and know-how introduced by the proposed PoA described in Part I, A.6. of the PoA-DD, JQA raised CLs 01-02 as follows:

CL01: The following descriptions in Part I, A.6. of the PoA-DD are to be clarified:

- The "fabric singering" is a process for fabric and thus it is not clear why it is categorized into yarn optimization.
- It is not clearly described whether "yarn optimization" and "dying optimization" are

[5] Source: http://www.textiletoday.com.bd/demo/magazine/print/52
[6] Source: http://www.fibre2fashion.com/industry-article/7/696/compact-spinning1.asp

mutually dependent measures which cannot be done alone or completely independent measures.
- Dying chart and comparison table for polyesters (disperse dye and cationic dye) are to be added.

Resolution: The following rectifications are made:
- CME/PP remove "fabric singering", "yarn singering" and "improve the quality of fabric" from the project technologies since possibility of application of these technologies is limited. Instead, “cold brand scouring” is added as one of the project technology.
- It is confirmed that three measures introduced by W.S.T, "yarn optimization", "dying optimization" and "cold brand scouring", are independent measures. Although "dying optimization" and "cold brand scouring" will be introduced to every CPA under the PoA, "yarn optimization" will be optional.
- Dying chart and comparison table for polyesters (disperse dye and cationic dye) are added.

CL02: The following issues in Part II, A.1. of the PoA-DD are to be clarified:
- It is not clear why “yarn optimization” is not described here, although it is described in Part I, A.6. of the PoA-DD.
- Energy savings by “other than dyeing machine” described in equations in Part II, B.6.1 is to be specified (such as type of machine, process, measure, etc.) and to be described in this section.

Resolution: These issues are resolved as follows:
- Description of "yarn optimization" is added in Part II, A.1. of the PoA-DD.
- Energy savings by "other than dyeing machine" is excluded from emission sources of CPAs under the PoA. Therefore, it is not necessary to describe the information about it.

Thorough the resolution of these CLs, accurate and complete information is provided in the PoA-DD.

Through the review of documents, site observation and interview with CME/PP during the on-site assessment, JQA confirms that the description of the proposed PoA and the generic CPA in the PoA-DD is accurate and complete and satisfies Section 7.11. of the VVS.

3.7. Application of the selected baseline and monitoring methodology

3.7.1. Applicability of the selected methodology to the project activity

The methodology applied to a CPA included in the proposed PoA is AMS-II.D. “Energy efficiency and fuel switching measures for industrial facilities” (Version 12) as described in Part II, B.2. of the PoA-DD. The methodology is not the latest version but the request for registration of the PoA/CPA-1 is submitted within the grace period up to 04/06/2014.

Table 2 summarizes the JQA’s validation comments regarding the applicability of AMS-II.D.

Refer to Part I, B.3. and Part II, B.2. of the PoA-DD for CME/PP's justification. As demonstrated in Table 3, a typical CPA included in the PoA satisfies every conditions provided under "technology/measure" in AMS-II.D.

Table 3 Assessment of the satisfaction of applicability conditions

No.	Technology/measure	Validation Comment
1	This category comprises any energy efficiency and fuel switching measures implemented at a single or several industrial or mining and mineral production facility(ies). This category covers project activities aimed primarily at energy efficiency; a project activity that involves primarily fuel switching falls into category III.B.1 Examples include energy efficiency measures (such as efficient motors), fuel switching measures (such as switching from steam or compressed air to electricity) and efficiency measures for specific industrial or mining and mineral production processes (such as steel furnaces, paper drying, tobacco curing, etc.).	The PoA will introduce energy efficiency measures for dyeing process in garment and textile factories. Therefore, this condition is satisfied.
2	The measures may replace, modify or retrofit existing facilities or be installed in a new facility.	The measures implemented by the proposed PoA will modify existing facilities by changing dyeing process (dyeing recipe, pretreatment process and/or yarn). Therefore, this condition is satisfied.
3	This category is applicable to project activities where it is possible to directly measure and record the energy use within the project boundary (e.g., electricity and/or fossil fuel consumption).	As described in Part II, B.7.2. of the PoA-DD, CPAs under the proposed PoA will directly measure and record water, steam and electricity consumption of batches by meters or a process control and energy management system. Therefore, this condition is satisfied.
4	This category is applicable to project activities where the impact of the measures implemented (improvements in energy	The measures introduced by the proposed PoA are dyeing process optimization, cold brand scouring and yarn optimization (optional) to save water, steam and electricity consumption in dyeing process. In

No.	Technology/measure	Validation Comment
	efficiency) by the project activity can be clearly distinguished from changes in energy use due to other variables not influenced by the project activity (signal to noise ratio).	case of dyeing machines, changes in energy use due to other variables not influenced by the PoA are not expected since energy demand of a certain batch is determined by dyeing recipe. Changes in energy use other than the dyeing machines, such as changes in efficiency of boilers and water pumps, will not impact on the calculation of emission reductions since the most conservative emission coefficients are determined *ex-ante* based on the specifications of such equipment. Changes in energy use at power generators connected to national / isolated grid or captive power generators can be reflected by monitoring. Therefore, this condition is satisfied.
5	The aggregate energy savings of a single project (inclusive of a single facility or several facilities) may not exceed the equivalent of 60 GWh_e per year. A total saving of 60 GWh_e per year is equivalent to a maximal saving of 180 GWh_{th} per year in fuel input.	Only microscale projects are included in the PoA through the check of eligibility criteria ("6. Each CPA should claim energy saving not more than 60 GWh_{th} per year for meeting the requirements of guideline of "Demonstrating additionality of micro scale project activities."). Therefore, the aggregate energy savings of a single CPA is less than 60 GWh_{th} and does not exceed 180 GWh_{th} per year. Therefore, this condition is satisfied.

Regarding the justification of the applicability of the methodology, JQA raised CL 03, CL 04, CL 33 and CL 34 as follows:

CL03: In Part I, B.3. and Part II, B.2., applicability check with Para 2 of AMS-II.D. is to be added.

Resolution: Applicability check with Para 2 of AMS-II.D. is added.

CL04: In Part I, B.3. and Part II, B.2., conformity of "yarn optimization" (see Part I, A.2.) and the "energy saving measures by other than dyeing machine" (see Part II, A.1.) with the applicability conditions of AMS-II.D. is not described specifically.

Resolution: The "energy saving measures by other than dyeing machine" is excluded from the project technologies. The applicability check of "yarn optimization" is added in Part I, B.3. and Part II, B.2. of the PoA-DD and its compliance with the applicability conditions is confirmed.

CL33: In Part I, B.3.1 of the PoA-DD, the full sentence of Para 1 of AMS-II.D is to be described. .

Resolution: The full sentence of Para 1 of AMS-II.D is described in the revised PoA-DD.

CL34: Demonstration that the CPA qualifies as Type II during every year of the crediting period in accordance with applicable provisions for project activity eligibility in PS is to be described.

Resolution: The following description is added: "For every year during the crediting period, the aggregate energy savings of each CPA under the PoA will not exceed 60 GWh_{th} per year."

Through the observation during the site visit and the review of the relevant documents, JQA confirms that a CPA included in the proposed PoA meets all the applicability conditions determined in AMS-II.D. (Version 12.0) and complies with Section 7.12.1. and 7.12.2. of VVS. Since all applicability conditions are satisfied, deviation from an approved methodology and clarification on the applicability of an approved methodology are not applicable to the PoA. Therefore, Section 7.12.3. and 7.12.4. of VVS are not applicable to the proposed PoA.

3.7.2. Project boundary

According to Para 6 of AMS-II.D., the project boundary is defined as "The project boundary is the physical, geographical site of the industrial or mining and mineral production facility(ies), processes or equipment that are affected by the project activity." According to Part II, B.3. of the PoA-DD, the project boundary of each CPA covers the followings:

- Dyeing machines (dyeing process)
- Water supply system
- Energy sources such as boilers and captive generators at factories
- National grid or isolated grids

Since CPAs under the PoA affect water, steam and electricity consumption by dyeing machines through introduction of dyeing process optimization, cold brand scouring and/or yarn optimization, the defined project boundary in the PoA-DD complies with Para 6 of AMS-II.D.

The GHG and sources being considered within the boundary is appropriately selected as the baseline and project CO_2 emissions from electricity consumption of dyeing machines, steam consumption of dyeing machines and electricity consumption of pumps used for lifting groundwater used for dyeing process.

Regarding the description of sourced and gases included in the project boundary in the flow diagram, JQA raised CL35 as follows:

CL35: The following information is not included in the flow diagram:

- Flows of mass and energy
- Emissions sources and GHGs included in the project boundary
- Data and parameters to be monitored.

Resolution: Flows of mass and energy, the emissions sources and GHGs included in the project boundary and the data and parameters to be monitored are added in Figure 21 in Part II, B.3. of the PoA-DD.

Through the physical site inspection, JQA confirms that it is unlikely that there are emission sources, which are not addressed by the applied methodology and are expected to contribute more than 1% of the overall expected average annual emissions reductions of CPAs under the PoA.

Through the document review, site inspection and interview with CME/PP, JQA confirms that the delineation of the project boundary described in the PoA-DD is correct and meets requirements of AMS-II.D. and thus complies with Section 7.12.5 of VVS. .

3.7.3. Baseline scenario identification and description

AMS-II.D. does not require several baseline scenarios to be considered in the identification of the most plausible baseline scenario. Instead, baseline scenario is defined in Paras 7, 9 and 10 of AMS-II.D. as follows:

- Para 7: In the case of replacement, modification or retrofit measures, the baseline consists of the energy baseline of the existing facility or sub-system that is replaced, modified or retrofitted. In the case of project activities involving several facilities, the baseline needs to be established separately for each site. In the case of project activities involving multiple energy efficiency measures at individual facilities, the interaction between the measures should be taken into consideration when establishing the baseline.
- Para 9: In the absence of the CDM project activity, the existing facility(ies) would continue to consume energy (EC_{BL} in GWh/year) at historical average levels (EC_{HY} in GWh/year), until the time at which the industrial or mining and mineral production facility(ies) would be likely to be replaced, modified or retrofitted in the absence of the CDM project activity ($DATE_{BaselineRetrofit}$).
- Para 10: Each energy form in the emission baseline is multiplied by an emission coefficient (in kg CO_2e/kWh).

Regarding the compliance of the stated baseline scenario with Paras 7, 9 and 10 of AMS-II.D., JQA raised CL05 as follows:

CL05: Regarding the description in Part II, B.4., the following issues are to be clarified:
- The CME/PP are requested to explain how they take into consideration the interaction between the measures ("yarn optimization", "dying optimization" and "energy saving measures by other than dyeing machine") when establishing the baseline as per Para

7 of AMS-II.D., since the proposed PoA involving multiple energy efficiency measures.

- The CME/PP are requested to describe how to determine "the time at which the dyeing practices would be likely to be replaced by the energy and water saving technologies in the absence of the CDM project activity" with reference to Para 9 of AMS-II.D.
- CME/PP are requested to explain how the baseline scenario is established in accordance with Para 10 of AMS-II.D regarding emission coefficients for electricity and steam.

Resolution: These issues are clarified as follows:

- The "energy saving measures by other than dyeing machine" is excluded from the project technologies. The technologies "yarn optimization", "dying process optimization" and "cold brand scouring" are confirmed to be independent measures. Then the description of the baseline scenario is appropriately revised as: "the current dyeing practices is the use of enzyme wash and hot brand scouring, and application of classical reactive dye for celluloses, disperse and reactive dye for CVCs and disperse dye for Polyesters."
- The following description is added: "No emission reductions will be claimed from a point of time of the replacement of existing dyeing machines with new dyeing machines onward."
- Baseline scenario regarding emission coefficients for electricity and fossil fuels in light of Para 10 of AMS-II.D. is described as follows: "Baseline emissions for electricity are estimated by multiplying the amount of electricity (in kWh/year) by the CO_2 emission factor of isolated grid/national grid/captive power generator (in kg CO_2/kWh or ton CO_2/MWh). On the other hand, baseline emissions for thermal (steam) energy are calculated by multiplying the amount of steam consumption (in ton/year) by an emission factor of steam generation (in ton CO_2/ton steam). The emission factor of steam generation is calculated based on the specification of thermal energy suppliers (boilers) and the IPCC default values for net calorific values and CO2 emission factors of fossil fuels that are used for thermal energy generation."

Regarding the description of the baseline scenario, JQA raised CL06 as follows:

CL06: Regarding project technologies "yarn optimization" and "energy saving measures by other than dyeing machine", description of the technology that would be employed and/or the activities that would take place in the absence of the proposed project activity are not provided.

Resolution: The "energy saving measures by other than dyeing machine" is excluded from project technologies. Regarding yarn optimization, baseline technology is defined as use of enzyme wash.

Regarding the national and/or sectoral policies and circumstances relevant to the baseline scenario, JQA raised CL07 as follows:

CL07: The CME/PP are requested to take into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector, in the identification of the baseline scenario where applicable.

Resolution: Through the review of publicly available information[7] and interview with local stakeholders, JQA confirms that there are no national policies or regulations for energy and water saving in textile and garment industry. The following description is added in the revised PoA-DD: "In Bangladesh textile and garment industry, there has been no any mandatory policy or regulation for energy and water saving".

Through the resolution of these CLs, JQA confirms that the baseline scenario described in Part I, B.4. of the PoA-DD reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed PoA, and complies with AMS-II.D.

Therefore, the PoA complies with Section 7.12.6. of the VVS.

3.7.4. Algorithms and/or formulae used to determine emission reductions

JQA reviewed the equations for calculation of emission reductions provided in the PoA-DD to confirm whether;

- All assumptions and data used are listed in the PoA-DD, including their references and sources;
- All documentation used as the basis for assumptions and source of data is correctly quoted and interpreted in the PoA-DD;
- All values used in the PoA-DD are considered reasonable in the context of the proposed CDM project activity;
- The baseline methodology is applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;
- All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PoA-DD.

The results of the assessment are described in detail in 1) to 5) below.

1) Description of Assumptions and Data Used

JQA assesses whether all assumptions and data used by CME/PP are listed in the PoA-DD, including their references and sources. Data and parameters used in the calculation of emission reductions are summarized in Table 4 and Table 5.

[7] Example: Greening the Supply Chain of the Textile Industry in Bangladesh - Opportunities to Reduce Pollution and Enhance Savings in Textile Factories: Preliminary Results Workshop
http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/0,,contentMDK:22908762~menuPK:2644086~pagePK:64020865~piPK:51164185~theSitePK:244381,00.html

Table 4 Parameters to be reported *ex-ante*

Parameter	Unit	Description	Source
$EC_{i,j,k,l}^{BL,Batch,dyeing}$	kWh/batch	Electricity consumption of an existing dyeing machine *i* for a batch in the baseline dyeing process for brightness of colour *j*, material *k* and at a load of *l*	CPA implementer
$WC_{i,j,k,l}^{BL,Batch}$	litre/batch	Water consumption of an existing dyeing machine *i* for a batch in the baseline dyeing process for brightness of colour *j*, material *k* at a load of *l*	CPA implementer
$Q_{disch\,arg\,e}^{Pump}$	m^3/s	Pump discharge capacity (m^3/s). Use a maximum discharge capacity from the specifications of a pump.	Manufacturer's specification
η_{motor}	%	Pump motor efficiency	The most highest efficiency theoretically possible
η_{pump}	%	Pump efficiency	The most highest efficiency theoretically possible
H_{total}	m	Total head of a pump	CPA implementer or water supplier
ρ	kg/m^3	Density of water	U.S. Geological Survey (USGS) Water Science School[8]
g	m/s^2	Acceleration due to gravity	The NIST Reference on Constants, Units and Uncertainty[9]
$SC_{i,j,k,l}^{BL,Batch}$	ton-steam/ batch	Steam consumption of an existing dyeing machine *i* for a batch in the baseline dyeing process for colour *j* material *k* at a load of *l*	CPA implementer
FC_{boiler}^{Fuel}	m^3/h	Boiler fuel consumption	Manufacturer's specification
SGC_{boiler}^{Fuel}	kg/h	Boiler steam generation capacity	Manufacturer's specification
NCV_{Gen}^{Fuel}	TJ/Gg	Net caloric value of the fuels used for electricity generation	2006 IPCC Guidelines for National GHG Inventories
NCV_{Boiler}^{Fuel}	TJ/Gg	Net caloric value of the fuels	2006 IPCC Guidelines for

[8] http://ga.water.usgs.gov/edu/density.html
[9] http://physics.nist.gov/cgi-bin/cuu/Value?gn|search_for=gravity

Parameter	Unit	Description	Source
		used for steam generation	National GHG Inventories
ρ_{Gen}^{Fuel}	kg/m^3 (natural gas) kg/L (diesel)	Density of the fuel used for electricity generation	FINAL REPORT ON EMISSION INVENTORY, BANGLADESH COUNTRY STUDY, ASIA LEAST-COST GREENHOUSE GAS ABATEMENT STRATEGY (ALGAS) **(Ref. 12)** Studies on the Production of Gasoline from Heavy oil (furnace oil) by Thermal Cracking **(Ref. 13)**
ρ_{boiler}^{Fuel}	kg/m^3 (natural gas) kg/L (diesel)	Density of the fuel used for steam generation	FINAL REPORT ON EMISSION INVENTORY, BANGLADESH COUNTRY STUDY, ASIA LEAST-COST GREENHOUSE GAS ABATEMENT STRATEGY (ALGAS) **(Ref. 12)** Studies on the Production of Gasoline from Heavy oil (furnace oil) by Thermal Cracking **(Ref. 13)**
$EF_{CO2}^{Fuel,gen}$	kg-CO2/TJ	CO_2 emission factor of the fuel used for electricity generation	2006 IPCC Guidelines for National GHG Inventories
$EF_{CO2}^{Fuel,boiler}$	kg-CO2/TJ	CO_2 emission factor of the fuel used for steam generation	2006 IPCC Guidelines for National GHG Inventories
EF_{CO2}^{Elec}	tCO2/MWh	Bangladesh grid emission factor	Bangladesh DNA **(Ref. 14)**

Table 5 Parameters to be monitored by each generic CPA

Parameter	Unit	Description	Source
$NB_{i,j,k,l,y}^{PJ}$	Number	Number of batches performed on an existing dyeing machine *i* in the project dyeing for brightness of color *j,* material *k* and at a load of *l* in a year y	CPA implementer
$EC_{i,j,k,l}^{BL,Batch,dyeing}$	kWh/batch	Electricity consumption of an existing dyeing machine *i* for a batch in the baseline dyeing process for brightness of colour *j,* material *k* and at a load of *l*	CPA implementer

Parameter	Unit	Description	Source
$EC_{i,j,k,l}^{PJ,Batch,dying}$	kWh/batch	Electricity consumption of an existing dyeing machine *i* for a batch in the project dyeing process for brightness of color *j,* material *k* and at a load of *l* in a year y	CPA implementer
$WC_{i,j,k,l}^{BL,Batch}$	liter/batch	Water consumption of an existing dyeing machine *i* for a batch in the baseline dyeing process for brightness of colour *j,* material *k* and at a load of *l*	CPA implementer
$WC_{i,j,k,l}^{PJ,Batch}$	liter/batch	Water consumption of an existing dyeing machine *i* for a batch in the project dyeing process for brightness of colour *j,* material *k* and at a load of *l*	CPA implementer
$SC_{i,j,k,l}^{BL,Batch}$	ton-steam/ batch	Steam consumption of an existing dyeing machine *i* for a batch in the baseline dyeing process for colour *j* material *k* at a load of *l*	CPA implementer
$SC_{i,j,k,i}^{PJ,Batch}$	ton-steam/ batch	Steam consumption of an existing dyeing machine *i* for a batch in the project dyeing process for colour *j* material *k* at a load of *l*	CPA implementer
$EG_{Gen,y}^{Fuel}$	kWh/ year	Amount of electricity generated from captive generators at the factories or isolated grid in year y	CPA implementer or isolated grid operators
$FC_{Gen,y}^{Fuel}$	m^3/year	Fuel consumption of captive generators or power plants of isolated grid in year y	CPA implementer or isolated grid operators

As noted from the above tables as well as Part II, B.6.2 and B.7.1 of the PoA-DD, several parameters are provided in B.6.2. as well as B.7.1., because it depends on each CPA whether such parameters are determined *ex-ante* or *ex-post*. Table 6 summarizes the conditions applied for selection of parameters based on Part II, B.6.2 and B.7.1 of the PoA-DD.

Table 6 Approaches to determine baseline electricity/water/steam consumption

Parameter	Condition	Applied monitoring method/assumption
$EC_{i,j,k,l}^{BL,Batch,dyeing}$	CPA factory in which electricity consumption per batch has been monitored by meters or process control and energy management system before the start of the CPA and past records are available.	*Ex-ante* measurement through meters or process control and energy management systems installed to dyeing machines is used to determine the baseline. The lowest measured value among the data for the most recent three years prior to the implementation of a CPA in the same machine/color/material/load category is used as the baseline electricity consumption for conservativeness.

Parameter	Condition	Applied monitoring method/assumption
	CPA factories other than the above (there is no past records about batch-wise electricity consumption)	*Ex-post* measuring for each batch by meters or process control and energy management system installed to dyeing machines at factories at the start of the CPA. The lowest measured value among the same machine/color/material/load category is used as the baseline electricity consumption for conservativeness.
$WC_{i,j,k,l}^{BL,Batch}$	CPA factory in which water consumption per batch has been monitored by meters or process control and energy management system before the start of the CPA and past records are available.	*Ex-ante* measurement through meters or process control and energy management systems installed to dyeing machines is used to determine the baseline. The lowest measured value among the data for the most recent three years prior to the implementation of a CPA in the same machine/color/material/load category is used as the baseline water consumption for conservativeness.
	CPA factories other than the above (there is no past records about batch-wise water consumption)	*Ex-post* measuring for each batch by meters or process control and energy management system installed to dyeing machines at factories at the start of the CPA. The lowest measured value among the same machine/colour/material/load category is used as the baseline water consumption for conservativeness.
$SC_{i,j,k,l}^{BL,Batch}$	CPA factory in which steam consumption per batch has been monitored by meters or process control and energy management system before the start of the CPA and past records are available.	*Ex-ante* measurement through meters or process control and energy management systems installed to dyeing machines is used to determine the baseline. The lowest measured value among the data for the most recent three years prior to the implementation of a CPA in the same machine/color/material/load category is used as the baseline steam consumption for conservativeness.
	CPA factories other than the above (there is no past records about batch-wise steam consumption)	*Ex-post* measuring for each batch by meters or process control and energy management system installed to dyeing machines at factories at the start of the CPA. The lowest measured value among the same machine/colour/material/load category is used as the baseline steam consumption for conservativeness.

If parameters $EC_{i,j,k,l}^{BL,Batch,dyeing}$, $WC_{i,j,k,l}^{BL,Batch}$ and $SC_{i,j,k,l}^{BL,Batch}$ are determined *ex-ante*, batch-wise electricity, water and steam consumption will be determined based on the past records. This approach complies with the recommendation of SSC WG in response to PP's requests for clarification and revision of approved SSC methodologies "SSC_642: Revision of AMS-II.D to

clarify determining baseline procedure and production capacity for projects involving batch processes" and Option C of "Tool to determine the baseline efficiency of thermal or electric energy generation systems" (Version 01) that is referred to in the SSC_642, namely:

- In the case that the tool is used to establish a constant efficiency, this option can only be used if annual data on the efficiency of the energy generation system is available for the most recent three years prior to the implementation of the project activity.
- If the tool is used to establish a constant efficiency, the highest annual efficiency from the most recent three years should be chosen.

If parameters $EC_{i,j,k,l}^{BL,Batch,dyeing}$, $WC_{i,j,k,l}^{BL,Batch}$ and $SC_{i,j,k,l}^{BL,Batch}$ are determined *ex-post*, batch-wise electricity, water and steam consumption will be determined based on the *ex-post* monitoring in parallel with the implementation of the project monitoring. This approach complies with Para 26 (a) of the latest version of AMS-II.D. (Version 13.0), namely: "A baseline measurement campaign shall be carried out (before or in parallel with the project implementation) on the baseline equipment/system, to establish the performance characteristics of the baseline scenario due to all the identified parameters (independent variables) that will have an effect on the performance of the equipment."

Regarding the description of parameters that are described in B.6.2. of the PoA-DD, JQA raised CL12 as follows:

> **CL12:** Regarding Part II, B.6.2. of the PoA-DD, the following confusion of parameters/ abbreviations are to be resolved:
> - It is not clear why $EC_{m,y}^{BL}$ in Eq. (2), $WC_{m,y}^{BL}$ in Eq. (3) and $SC_{m,y}^{BL}$ in Eq. (4) in Part II, B.6.1. are not described in Part II, B.6.2.
> - Two different definitions ("Density of the fuel for generators" and "Density of the fuel for boilers") are provided for De_{gen}^{fuel} in Part II, B.6.2.
>
> **Resolution:** The confusion of parameters/abbreviations is rectified as follows:
> - Energy efficiency measures other than dyeing machines are excluded from the project technologies. Subsequently, $EC_{m,y}^{BL}$, $WC_{m,y}^{BL}$ and $SC_{m,y}^{BL}$ are deleted.
> - Different abbreviations are given for "Density of the fuel for generators" and "Density of the fuel for boilers".

JQA confirms that all parameters used by CME are listed in Part II, B.6.2. and B.7.1. of the PoA-DD, including their references and sources.

2) Correct Quotation and Interpretation of Documentation

JQA has reviewed all documentation used as the basis for assumptions and sources of data **(Ref. 12, 13, 14)**. Documents quoted as a source of parameters are listed in Table 7.

Table 7 Values and sources for parameters

Parameter	Value	Sources
η_{motor}	100%	Most conservative pump motor efficiency
η_{pump}	100%	Most conservative pump efficiency
ρ	1,000 kg/m^3	U.S. Geological Survey (USGS) Water Science School[12]
g	9.80665 m/s^2	The NIST Reference on Constants, Units and Uncertainty[13]
NCV_{Gen}^{Fuel}	46.5 TJ/Gg for natural gas 41.4 TJ/Gg for diesel	IPCC default values at the lower limit of the uncertainty at a 95 per cent confidence interval as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines for National GHG Inventories
NCV_{boiler}^{Fuel}	46.5 TJ/Gg for natural gas 41.4 TJ/Gg for diesel	IPCC default values at the lower limit of the uncertainty at a 95 per cent confidence interval as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines for National GHG Inventories
ρ_{Gen}^{Fuel}	0.717 kg/m^3 for natural gas 0.8445 kg/L for diesel	- Page 11, FINAL REPORT ON EMISSION INVENTORY, BANGLADESH COUNTRY STUDY, ASIA LEAST-COST GREENHOUSE GAS ABATEMENT STRATEGY (ALGAS) **(Ref. 12)** - Studies on the Production of Gasoline from Heavy oil (furnace oil) by Thermal Cracking **(Ref. 13)**
ρ_{boiler}^{Fuel}	0.717 kg/m^3 for natural gas 0.8445 kg/L for diesel	- Page 11, FINAL REPORT ON EMISSION INVENTORY, BANGLADESH COUNTRY STUDY, ASIA LEAST-COST GREENHOUSE GAS ABATEMENT STRATEGY (ALGAS) **(Ref. 12)** - Studies on the Production of Gasoline from Heavy oil (furnace oil) by Thermal Cracking **(Ref. 13)**
$EF_{CO2}^{Fuel,gen}$	54,300 kg-CO2/TJ for natural gas 72,600 kg-CO_2/TJ for diesel	IPCC default values at the lower limit of the uncertainty at a 95 per cent confidence interval as provided in table 1.4 of Chapter1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines for National GHG Inventories
$EF_{CO2}^{Fuel,boiler}$	54,300 kg-CO2/TJ for natural gas 72,600 kg-CO_2/TJ for diesel	IPCC default values at the lower limit of the uncertainty at a 95 per cent confidence interval as provided in table 1.4 of Chapter1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines for National GHG Inventories
EF_{CO2}^{Elec}	0.67 tCO_2/MWh	Bangladesh DNA **(Ref. 14)**

The national grid emission factor authorized by Bangladesh DNA **(Ref. 14)** is applicable to

[12] http://ga.water.usgs.gov/edu/density.html
[13] http://physics.nist.gov/cgi-bin/cuu/Value?gn|search_for=gravity

CPAs under the PoA in which electricity is supplied from the national grid. For CPAs supplied by captive power plants or isolated grid, the electricity emission factor is calculated based on the fuel consumption and electricity generation data and IPCC default values.

The source of density of diesel, "Studies on the Production of Gasoline from Heavy oil (furnace oil) by Thermal Cracking" **(Ref. 13)**, is added as a result of resolution of CL12 of CPA-1 **(Ref. 4)** since density of diesel is not provided in Page 11, FINAL REPORT ON EMISSION INVENTORY, BANGLADESH COUNTRY STUDY, ASIA LEAST-COST GREENHOUSE GAS ABATEMENT STRATEGY (ALGAS) **(Ref. 12)**. The values applied to natural gas and diesel are also corrected from 0.72 kg/m^3 to 0.717 kg/m^3 and 0.84 kg/L to 0.8445 kg/L, respectively.

Regarding the quotation of parameter from 2006 IPCC Guidelines for National GHG Inventories, JQA raised CL13 as follows:

> **CL13:** The values applied for $EF_{CO2}^{Fuel,gen}$ quoted from 2006 IPCC are to be corrected to the values at the lower limit of the uncertainty at a 95% confidence interval for conservativeness.
>
> **Resolution:** The following values, at the lower limit of the uncertainty at a 95% confidence interval, are applied in the revised PoA-DD.
> - 54,300 kgCO_2/TJ for natural gas
> - 72,600 kgCO_2/TJ for diesel

Through the resolution of CL13, JQA confirms that the values used in the PoA-DD are correctly quoted and interpreted.

3) Appropriateness of Values Used in the CPA

Values for "data and parameters to be monitored by each CPA" are neither reported in the PoA-DD nor the generic CPA-DD. Therefore, this assessment is not relevant to the PoA. When inclusion of CPA, it will be checked whether all the values of data and parameters to be reported in CPA-DD are reasonable in the context of each CPA.

4) Correct Application of Methodology / Tool

JQA has reviewed the PoA-DD whether the equations and parameters in the PoA-DD are in accordance with AMS-II.D. In the following section, equations and parameters used for calculating baseline emissions, project emissions, leakage and emission reductions are discussed separately.

(1) Baseline emissions

According to Part II, B.6.1 of the PoA-DD, baseline emissions of a CPA in the PoA are calculated by the following equations and parameters.

$$BE_y = \left(EC_{Dyeing,y}^{BL} + EC_{Water,y}^{BL}\right)/1{,}000 \times EF_{CO2}^{Elec} + SC_y^{BL} \times EF_{CO2}^{Steam} \qquad (1)$$

Where:

BE_y	Baseline emissions in year *y* (tCO2e/year)
$EC^{BL}_{Dyeing,y}$	Baseline electricity consumption by existing dyeing machines to which new measures are introduced by a CPA in year *y* (kWh/year)
$EC^{BL}_{Water,y}$	Baseline electricity consumption by pumping of water that is used in existing dyeing machines in year *y* (kWh/year)
SC^{BL}_{y}	Baseline steam consumption by existing dyeing machines to which new measures are introduced by a CPA in year *y* (ton-steam/year)
EF^{Elec}_{CO2}	CO_2 emission factor of the electricity used at the factories for dyeing (a grid emission factor or an emission factor of a captive generator or isolated grid from where electricity is provided) (tCO_2/MWh)
EF^{Steam}_{CO2}	CO_2 emission factor of steam generation at the factories (tCO_2/ton-steam)

$$EC^{BL}_{Dyeing,y} = \sum_i \sum_j \sum_k \sum_l EC^{BL,Batch,dyeing}_{i,j,k,l} \times NB^{PJ}_{i,j,k,l,y} \qquad (2)$$

Where:

$EC^{BL}_{Dyeing,y}$	Baseline electricity consumption by existing dyeing machines to which new measures are introduced by a CPA in year *y* (kWh/year)
$EC^{BL,Batch,dyeing}_{i,j,k,l}$	Electricity consumption of an existing dyeing machine *i* for a batch in the baseline dyeing process for brightness of colour *j*, material *k* and at a load of *l* (kWh/batch)
$NB^{PJ}_{i,j,k,l,y}$	Number of batches performed on an existing dyeing machine *i* in the project dyeing processes for brightness of color *j*, material *k* and at a load of *l* in a year *y*
i	Type of an existing dyeing machine used at the factories
j	Brightness of color of textile being dyed at the factories (*j*: light, medium, dark)
k	Type of textile being dyed at the factories (*k*: cellulose (such as cotton and viscose), CVC and polyester)
l	Load of fabric for an existing dyeing machine used at the factories

$$EC^{BL}_{Water,y} = \sum_i \sum_j \sum_k \sum_l WC^{BL,Batch}_{i,j,k,l} \times NB^{PJ}_{i,j,k,l,y} \times EC^{Pump}_{Water} \qquad (3)$$

Where:

$EC^{BL}_{Water,y}$	Baseline electricity consumption by pumping of water that is used in existing dyeing machines in year *y* (kWh/year)
$WC^{BL,Batch}_{i,j,k,l}$	Water consumption in a machine *i* for a batch in the baseline dyeing process for brightness of colour *j,* material *k* and at a load of *l* (Litre/batch)
$NB^{PJ}_{i,j,k,l,y}$	Number of batches performed on an existing dyeing machine *i* in the project dyeing processes for brightness of color *j*, material *k* and at a load of *l* in a year *y*
EC^{Pump}_{Water}	Electricity consumption for pumping groundwater to the factories (kWh/liter)
i	Type of an existing dyeing machine used at the factories
j	Brightness of color of textile being dyed at the factories (*j*: light, medium, dark)
k	Type of textile being dyed at the factories (*k*: cellulose (such as cotton and viscose), CVC and polyester)
l	Load of fabric for an existing dyeing machine at the factories

As described in Eq. (4) – (7) below, the electricity consumption for pumping groundwater to the factories (kWh/liter), EG^{Pump}_{Water} is determined *ex-ante* theoretically by using parameters

available from the specifications and information of pumps and constants. JQA confirms on-site that lifting pumps used at DEPZ as well as several textile and garment factories in Bangladesh have not equipped dedicated electricity meters and water flow meters. Therefore, it is not possible as well as pragmatic to determine EG_{Water}^{Pump} based on the monitoring data of water and electricity. The calculation approach provided in the PoA-DD will result in a very conservative emission coefficient because the pump efficiency and motor efficiency is assumed to be 100%. Therefore, JQA considers that the calculation approach is sufficiently conservative.

$$EC_{Water}^{Pump} = \frac{P_{in}^{Pump}}{Q_{discharge}^{Pump} \times 3.6 \times 10^{6}} \quad (4)$$

Where:

EC_{Water}^{Pump}	Electricity consumption for pumping groundwater to the factories (kWh/liter)
P_{in}^{Pump}	Pump electrical input power (kW)
$Q_{discharge}^{Pump}$	Pump discharge capacity (m^3/s). Use a maximum discharge capacity from the specifications of a pump.

$$P_{in}^{Pump} = \frac{P_{shaft}^{Pump}}{\eta_{motor}} \quad (5)$$

Where:

P_{in}^{Pump}	Pump electrical input power (kW)
P_{shaft}^{Pump}	Pump shaft power (kW)
η_{motor}	Pump motor efficiency (%). 100% is used in a conservative manner.

$$P_{shatt}^{Pump} = \frac{P_{hydro}}{\eta_{pump}} \quad (6)$$

Where:

P_{shaft}^{Pump}	Pump shaft power (kW)
P_{hydro}	Pump hydraulic power (kW)
η_{pump}	Pump efficiency (%). 100% is used in a conservative manner.

$$P_{hydro} = Q_{discharge}^{Pump} \times H_{total} \times \rho \times g / 1{,}000 \quad (7)$$

Where:

P_{hydro}	Pump hydraulic power (kW)
$Q_{discharge}^{Pump}$	Pump discharge capacity (m^3/s). Use a maximum discharge capacity from the specifications of a pump.

H_{total}	Total head of a pump (m)
ρ	Density of water (1,000 kg/m^3)
g	Acceleration due to gravity (9.80665 m/s^2)

$$SC_y^{BL} = \sum_i \sum_j \sum_k \sum_l SC_{i,j,k,l}^{BL,Batch} \times NB_{i,j,k,l,y}^{PJ} \qquad (8)$$

Where:

SC_y^{BL}	Baseline steam consumption by existing dyeing machines to which new measures are introduced by a CPA in year *y* (ton/year)
$SC_{i,j,k,l}^{BL,Batch}$	Steam consumption of an existing dyeing machine *i* for a batch in the baseline dyeing process for colour *j,* material *k* and at a load of *l* (ton-steam/batch)
$NB_{i,j,k,l,y}^{PJ}$	Number of batches performed on an existing dyeing machine *i* in the project dyeing processes for brightness of color *j*, material *k* and at a load of *l* in a year *y*
i	Type of an existing dyeing machine used at the factories
j	Brightness of color of textile being dyed at the factories (*j*: light, medium, dark)
k	Type of textile being dyed at the factories (*k*: cellulose (such as cotton and viscose), CVC and polyester)
l	Load of fabric for an existing dyeing machine at the factories

$$EF_{CO2}^{Elec} = Bangladesh\,Grid\;\;Emission\;\;Factor \quad (9)$$

or

$$EF_{CO2}^{Elec} = \frac{FC_{Gen,y}^{Fuel} \times \rho_{Gen}^{Fuel} \times NCV_{Gen}^{Fuel} \times EF_{CO2}^{Fuel,gen}}{EG_{Gen,y}^{Fuel}} \times 10^{-6} \qquad (10)$$

Where:

EF_{CO2}^{Elec}	CO_2 emission factor of the electricity used at the factories for dyeing (a grid emission factor or an emission factor of a captive generator or isolated grid from where electricity is provided) (tCO_2/MWh)
$EG_{Gen,y}^{Fuel}$	Amount of electricity generated from generators at the factories or isolated grid in year y (kWh/year).
$FC_{Gen,y}^{Fuel}$	Fuel consumption of captive generators or power plants of isolated grid in year y (m^3/year).
NCV_{Gen}^{Fuel}	Net caloric value of the fuel used for electricity generation (TJ/Gg)
ρ_{Gen}^{Fuel}	Density of the fuel used for electricity generation (kg/m^3)
$EF_{CO2}^{Fuel,gen}$	CO_2 emission factor of the fuel used for electricity generation (kg-CO_2/TJ)

As described in Eq. (11) below, CO_2 emission factor of steam generation at the factories (ton CO_2/ton-steam), EF_{CO2}^{Steam} , is determined *ex-ante* by using parameters available from the specifications of boilers and IPCC default values. JQA confirms on-site that boilers used at textile and garment factories in Bangladesh are generally not equipped with dedicated steam/electricity meters and fuel meters. Therefore, it is not possible to determine EF_{CO2}^{Steam}

based on the monitoring data of steam generation and fuel consumption. The calculation approach provided in the PoA-DD will result in a very conservative emission factor because it is based on the catalogue value. The actual efficiency of existing (and generally aged) boilers, which are operated intermittently with fluctuating load, is considered to be much lower than the catalogue value. Therefore, JQA considers that the calculation approach is sufficiently conservative.

$$EF_{CO2}^{Steam} = FC_{boiler}^{Fuel} \times \rho_{boiler}^{Fuel} \times NCV_{boiler}^{Fuel} \times EF_{CO2}^{Fue,boiler} / SGC_{boiler}^{Fuel} \times 10^{-6} \quad (11)$$

Where:

EF_{CO2}^{Steam}	CO_2 emission factor of steam generation at the factories (tCO_2/ton-steam)
FC_{boiler}^{Fuel}	Boiler fuel consumption (m3/h). A figure from a boiler specification; in the case of boilers from different makers, the lowest figure will be used in a conservative manner
ρ_{boiler}^{Fuel}	Density of fuel used for steam generation (kg/m^3)
NCV_{boiler}^{Fuel}	Net caloric value of the fuel used for steam generation (TJ/Gg).
$EF_{CO2}^{Fuel,boiler}$	CO_2 emission factor of the fuel used for steam generation (kg-CO_2/TJ)
SGC_{boiler}^{Fuel}	Boiler steam generation capacity (kg-steam/h). A figure from a boiler specification; in the case of boilers from different makers, the highest figure will be used in a conservative manner

AMS-II.D. (Version 12.0) does not explicitly provide equations and parameters used to calculate emission reductions. Therefore, CME/PP have developed the equations for the calculation of baseline emissions taking Para 7,9,10 and 12 of AMS-II.D. into consideration (note that Para 8 and 10 are requirements for new facilities and thus not relevant to the CPAs under the PoA). Regarding the appropriateness of the equations in light with these paragraphs, JQA raised CLs 08-10 as follows:

CL08: Regarding Part II, B.6.1. of the PoA-DD, the equations are to be reviewed taking the following comments into consideration:

- In Eq. (2), $EC_{Dyeing,y}^{BL}$ is defined as "Baseline emission from electricity consumption by dyeing processes in year y". However, it includes $EC_{m,y}^{BL}$ (Historical average electricity consumption of a targeted machine m in the factory by the project other than dyeing machine in a year y) that is outside of the dying process. This equation is to be revised to avoid confusion. The same kind of revision is also to be made for Eqs. (3), (4), (8), (9) and (10).
- "Other than dying machine" is to be specified and the equations to calculate the baseline/project emissions in "other than dying machine" are to be revised so as to reflect the possible variation in energy consumption by type of machine, yarn, fabric, load, etc.
- The calculation to obtain $EF_{CO2}^{PJ,elec}$ = 0.584, based on Para 10 of AMS-II.D., is to be clearly described in Part II, B.4., B.6.1, Appendix 3 or Appendix 4 of the PoA-DD.

- There are two options for $EF_{CO2}^{PJ,elec}$. The CME/PP shall clearly define under what case each value/equation is to be applied.
- Regarding Eq. (3) and (9), number of tanks at ETP is used to describe the number of pumps used at Effluent Treatment Plant (ETP). The CME/PP are requested to justify why (Number of tanks -1) always equal to the number of pumps in an ETP of a CPA included in the PoA.

Resolution: These issues are resolved as follows:

- "Energy efficiency measures other than dyeing machines" are excluded from the project technologies and parameters and equations relevant to this emission source are also removed.
- "Energy efficiency measures other than dyeing machines" are excluded from the project technologies.
- The national grid emission factor in Bangladesh used by a CPA under the PoA is provided from the Bangladesh DNA's website **(Ref. 14)** and the applied value is revised to 0.67 tCO_2e/MWh. The original data and calculation procedures for the national grid emission factor are not disclosed by the Bangladesh DNA.
- Description about the condition to apply each electricity emission factor is added in Part II, B.6.1. of the PoA-DD as follows: "In the case where textile and garment factories use electricity steadily from national grid, the Bangladesh national grid emission factor (combined margin) officially published by DNA (designated national authority) will be applied." and "If the factories use electricity from their own generators or isolated grid that provide electricity to specific region where the factories are located, the emission factor of the power plant is calculated *ex-post* by the following equation based on AMS-I.D (version17) with data on fuel type, fuel input and power output obtained from generators or each plant."
- Electricity consumptions by pumps used to transport wastewater from tank to tank are excluded from the baseline/project emission sources and thus parameters and equations relevant to this source are also excluded.

CL09: The baseline emission coefficient including $EF_{CO2}^{BL,elec}$, $EF_{CO2}^{BL,steam}$, $EC_{freash,water}^{BL,pumping}$ and $EC_{waste,water}^{BL,pumping}$ are planned to be determined *ex-ante* by the past three years or at least one-year data. However, according to "Bangladesh Textile Factory Survey Report in the Field of Energy & Water Saving" issued by Japan Textile Consultants' Centre (JTCC) in September 2012 **(Ref. 15)**, there are plenty rooms for improvement of energy efficiency in power generators and boilers (and possibly pumps) used in textile and garment factories in Bangladesh. Therefore, if energy efficiency improvement activities or replacement with high efficient equipment are conducted for power generators, boilers and pumps after the implementation of the PoA independently from the PoA, $EF_{CO2}^{PJ,elec}$, $EF_{CO2}^{BL,steam}$, $EC_{freash,water}^{BL,pumping}$ and $EC_{waste,water}^{BL,pumping}$, which are determined by *ex-post* monitored values, will become smaller than corresponding baseline parameters to result in higher emission reductions. Furthermore, this also could results in violation of Para 4

of AMS-II.D. (This category is applicable to project activities where the impact of the measures implemented by the project activity can be clearly distinguished from changes in energy use due to other variables not influenced by the project activity). The CME/PP are requested to review the current approach so as to ensure accuracy and conservativeness.

Resolution: $EC^{BL,pumping}_{waste,water}$ and $EC^{PJ,pumping}_{waste,water}$ are excluded from the equations since electricity consumption by pumps used to transport wastewater from tank to tank is excluded from the baseline/project emission sources. The parameters for electricity emission factor ($EF^{BL,elec}_{CO2}$ and $EF^{PJ,elec}_{CO2}$), steam emission factor ($EF^{BL,steam}_{CO2}$ and $EF^{PJ,steam}_{CO2}$) and specific electricity consumption by fresh water pumping ($EC^{BL,pumping}_{freash,water}$ and $EC^{PJ,pumping}_{freash,water}$) are integrated into a single parameter and thus the same emission coefficient is come to be used for calculation of baseline and project emissions.

CL10: Para 9 of AMS-II.D. ("In the absence of the CDM project activity, the existing facility(ies) would continue to consume energy (EC_{BL} in GWh/year) at historical average levels (EC_{HY} in GWh/year), until the time at which the industrial or mining and mineral production facility(ies) would be likely to be replaced, modified or retrofitted in the absence of the CDM project activity ($DATE_{BaselineRetrofit}$). From that point of time onwards, the baseline scenario is assumed to correspond to the project activity, and baseline energy consumption (EC_{BL}) is assumed to equal project energy consumption ($EC_{PJ,y}$ in GWh/year), and no emission reductions are assumed to occur.") is not clearly addressed in Part II, B.6.1 of the PoA-DD.

Resolution: The description "The CPAs under the PoA will not replace any dyeing machine in the target textile and garment factories. Only existing dyeing machines in a factory before project implementation are targeted throughout the crediting period." is added in Part II, B.6.1 of the PoA-DD. Energy consumption at historical average level would be applied until the time at which existing dyeing machines is replaced, modified or retrofitted as per Para 9 of AMS-II.D.

Through the resolution of these CLs, the target emission sources, i.e., electricity consumption for dying process, electricity consumption for pumping groundwater used for dyeing process and steam consumption for dyeing process are fully addressed by the equations for calculation of baseline emissions. The calculation approach used in the equations is based on Para 10 of AMS-II.D. ("Each energy form in the emission baseline is multiplied by an emission coefficient (in $kgCO_2e/kWh$). For the electricity displaced, the emission coefficient is calculated in accordance with provisions under category I.D. For fossil fuels, the IPCC default values for emission coefficients may be used.").

With respect to CO_2 emission coefficient for electricity, JQA confirms that the following three types of electricity sources are possible for textile and garment industry in Bangladesh:

- Bangladesh national grid

- Isolated grid supplying electricity to specific area/users (e.g., United Power Generation and Distribution Company (UPGDC) supplying electricity to Dhaka Export Processing Zone (DEPZ))
- Captive power generators owned by a textile and garment factory in which CPA is implemented

Para 10 of AMS-II.D. describes that: "Each energy form in the emission baseline is multiplied by an emission coefficient (in kgCO2e/kWh). For the electricity displaced, the emission coefficient is calculated in accordance with provisions under category I.D." According to Para 12 of AMS-I.D., the emission factor can be calculated as follows:

(a) A combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the "Tool to calculate the Emission Factor for an electricity system"

OR

(b) The weighted average emissions (in tCO_2/MWh) of the current generation mix. The data of the year in which project generation occurs must be used.

According to the CME/PP, the Bangladesh national grid emission factor is determined based on option (a) above, namely, "Tool to calculate the Emission Factor for an electricity system". It is determined *ex-ante* and fixed during the crediting period. The PoA-DD does not describe step-by-step calculation of the national grid emission factor because the original data used by the Bangladesh DNA to calculate its national grid emission factor is not publicly available.

On the other hand, as described in Part II, B.7.1. of the PoA-DD, the CO_2 emission factor of electricity from an isolated grid or captive power generators owned by a textile and garment factory is determined based on option (b) above. It is determined *ex-post* based on the monitoring data of electricity supply and fuel consumption of relevant power plants, and updated annually. The equation provided in PoA-DD complies with this requirement and relevant methodological requirement is satisfied.

JQA confirms that the equation for calculation of baseline emissions provided in Part II, B.6.1 of the PoA-DD satisfied all relevant methodological requirements.

(2) Project emissions

According to Part II, B.6.1 of the PoA-DD, project emissions of a CPA in the PoA are calculated by the following equations and parameters.

$$PE_y = \left(EC^{PJ}_{Dyeing,y} + EC^{PJ}_{Water,y}\right)/1{,}000 \times EF^{Elec}_{CO2} + SC^{PJ}_{y} \times EF^{Steam}_{CO2} \qquad (12)$$

Where:

PE_y	Project emissions in year y (tCO_2e/year)

$EC^{PJ}_{Dyeing,y}$	Project electricity consumption by existing dyeing machines to which new measures are introduced by a CPA in year *y* (kWh/year)
$EC^{PJ}_{Water,y}$	Project electricity consumption by pumping of water that is used in existing dyeing machines in year *y* (kWh/year)
SC^{PJ}_{y}	Project steam consumption by existing dyeing machines to which new measures are introduced by a CPA in year *y* (ton-steam/year)
EF^{Elec}_{CO2}	CO_2 emission factor of the electricity used at the factories for dyeing (a grid emission factor or an emission factor of a captive generator or isolated grid from where electricity is provided) (tCO_2/MWh)
EF^{Steam}_{CO2}	CO_2 emission factor of steam generation at the factories (tCO_2/ton-steam). It is determined from specifications of boilers used at the factories for providing steam to dyeing section.

$$EC^{PJ}_{Dyeing,y} = \sum_i \sum_j \sum_k \sum_l EC^{PJ,Batch,dyeing}_{i,j,k,l} \times NB^{PJ}_{i,j,k,l,y} \qquad (13)$$

Where:

$EC^{PJ}_{Dyeing,y}$	Project electricity consumption by existing dyeing machines to which new measures are introduced by a CPA in year *y* (kWh/year)
$EC^{PJ,Batch,dyeing}_{i,j,k,l}$	Electricity consumption of an existing dyeing machine *i* for a batch in the project dyeing process for brightness of colour *j*, material *k* and at a load of *l* (kWh/batch)
$NB^{PJ}_{i,j,k,l,y}$	Number of batches performed on an existing dyeing machine *i* in the project dyeing processes for brightness of color *j*, material *k* and at a load of *l* in a year *y*
i	Type of an existing dyeing machine used at the factories
j	Brightness of color of textile being dyed at the factories (*j*: light, medium, dark)
k	Type of textile being dyed at the factories (*k*: cellulose (such as cotton and viscose), CVC and polyester)
l	Load of fabric for an existing dyeing machine used at the factories

$$EC^{PJ}_{Water,y} = \sum_i \sum_j \sum_k \sum_l WC^{PJ,Batch}_{i,j,k,l} \times NB^{PJ}_{i,j,k,l,y} \times EC^{Pump}_{Water} \qquad (14)$$

Where:

$EC^{PJ}_{Water,y}$	Project electricity consumption by pumping of water that used in existing dyeing machines in year y (kWh/year)
$WC^{PJ,Batch}_{i,j,k,l}$	Water consumption in an existing dyeing machine *i* for a batch in the project dyeing process for colour *j,* material *k* and at a load of *l* (Litre/batch)
$NB^{PJ}_{i,j,k,l,y}$	Number of batches performed on an existing dyeing machine *i* in the project dyeing processes for brightness of color *j*, material *k* and at a load of *l* in a year *y*
EC^{Pump}_{Water}	Electricity consumption for pumping groundwater to the factories (kWh/liter). It is determined from specifications of pumps used for water provision such as power capacity, water output capacity and other working conditions such as heads.
i	Type of an existing dyeing machine used at the factories
j	Brightness of color of textile being dyed at the factories (*j*: light, medium, dark)
k	Type of textile being dyed at the factories (*k*: cellulose (such as cotton and viscose), CVC and polyester)
l	Load of fabric for an existing dyeing machine used at the factories

$$SC^{PJ}_{y} = \sum_i \sum_j \sum_k \sum_l SC^{PJ,Batch}_{i,j,k,l} \times NB^{PJ}_{i,j,k,l,y} \qquad (15)$$

Where:

SC_y^{PJ}	Project steam consumption by existing dyeing machines to which new measures are introduced by a CPA in year *y* (ton-steam /year)
$SC_{i,j,k,l}^{PJ,Batch}$	Steam consumption of an existing dyeing machine *i* for a batch in the project dyeing process for brightness of colour *j,* material *k* and at a load of *l* (ton-steam /batch)
$NB_{i,j,k,l,y}^{PJ}$	Number of batches performed on an existing dyeing machine *i* in the project dyeing processes for brightness of color *j*, material *k* and at a load of *l* in a year *y*
i	Type of an existing dyeing machine used at the factories
j	Brightness of color of textile being dyed at the factories (*j*: light, medium, dark)
k	Type of textile being dyed at the factories (*k*: cellulose (cotton and viscose), CVC and polyester)
l	Load of fabric for an existing dyeing machine used at the factories

As noted from the above equations, basic concept of the equations used for the calculation of project emissions is the same as those for baseline emissions. Through the resolution of CLs 08-10 described in (1) above, JQA confirms that the equations for calculation of project emissions provided in Part II, B.6.1 of the PoA-DD satisfy all relevant methodological requirements.

(3) Leakage

Regarding the compliance with the methodological requirement about leakage, JQA raised CL11 as follows:

> **CL11:** The CME/PP are requested to demonstrate that any CPA does not involve the replacement of equipment. If a CPA involves the replacement of equipment, leakage effect is to be assessed based on Para 15 of AMS-II.D (independent monitoring of scrapping of replaced equipment need to be implemented).
>
> **Resolution:** Through the on-site assessment and the interview with CME/PP and CPA implementer, JQA confirms that the technology/measure installed by the proposed PoA is the modification of dyeing/pretreatment process and/or yarn and did not replace existing equipment (dyeing machine). Since any CPA does not involve the replacement of equipment, leakage is not necessary to be considered.

Through the resolution of CL11 and Part II, B.6.1 of the PoA-DD, it is confirmed that there is no leakage for a CPA in the PoA as follows.

$$L_y = 0 \qquad (16)$$

(4) Emission reductions

According to Part II, E.6.1 of the PoA-DD, emission reductions of a CPA in the PoA are calculated by the following equation and parameters.

$$ER_y = BE_y - PE_y - L_y \qquad (17)$$

Where:

ER_y	Emission reductions in year y (tCO_2e/year)
BE_y	Baseline emissions in year y (tCO_2e/year)
PE_y	Project emissions in year y (tCO_2e/year)
L_y	Leakage in year y (tCO_2e/year)

JQA confirms that the applied methodology is correctly applied.

5) Reproducibility of calculation

The PoA-DD provides *ex-ante* calculation of emission reductions in Part II, B.6.3 of the PoA-DD in a transparent manner. The equations and values provided are sufficiently clear. Note that emission reductions are achieved in real case CPAs and thus emission reductions are not claimed in the PoA-DD. It will be assessed whether all estimates of the baseline emissions can be replicated using the data and parameter values provided in the CPA-DD when inclusion of each specific CPA.

As demonstrated in 1) – 5) above, the proposed PoA satisfies Section 7.12.7. of VVS.

3.7.5. Additionality of Project Activity

Regarding the description of the current dyeing practice provided in Part I, B.1. of the PoA-DD, JQA raised CL14 as follows:

> **CL14:** Regarding the additionality, the evidence / basis of the following statement in Part I, B.1. of the PoA-DD is to be provided: "As dominant common dyeing practice for cellulose (mainly cotton) in Bangladesh is reactive dyeing with medium quality yarns, the energy and water saving technologies are hardly disseminated without efforts of the CME. Hence, avoidance of anthropogenic GHG emissions would have not occurred in the absence of this PoA; current practices would be used continuously."
>
> **Resolution:** Through the interview with several dyeing factories, dye chemical suppliers and Bangladesh Garment Manufacturers and Exporters Association (BGMEA) on-site, and the review of publicly available information[16], JQA confirms that the statement described in Part I, B.1. of the PoA-DD is correct. Reactive dyeing with low-medium quality yarn are generally used and energy and water saving measures are rarely conducted because of no or very low water and energy cost.

Paras 7 and 8 of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” (Version 03.0) specify that:

- Additionality shall be demonstrated by establishing that in the absence of CDM, none of

[16] Example: Greening the Supply Chain of the Textile Industry in Bangladesh - Opportunities to Reduce Pollution and Enhance Savings in Textile Factories: Preliminary Results Workshop http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/0,,contentMDK:22908762~menuPK:2644086~pagePK:64020865~piPK:51164185~theSitePK:244381,00.html

the implemented CPAs would occur; and

- PoAs that consist of one or more microscale projects as CPAs shall include eligibility criteria derived from all the relevant requirements of the “Guidelines for demonstrating additionality of microscale project activities”.

According to Para 9 of “Guidelines for demonstrating additionality of microscale project activities” (Version 05.0), energy efficiency project activities that aim to achieve energy savings at a scale of no more than 20 GWh per year are additional if any one of the conditions below is satisfied:

(a) The geographic location of the project activity is in an LDC/SIDS or SUZ of the host country identified by the government in accordance with the paragraph 8(a)(i) above;

(b) The project activity is an energy efficiency activity with both conditions (i) and (ii) below satisfied:
  (i) Each of the independent subsystems/measures in the project activity achieves an estimated annual energy savings equal to or smaller than 600 megawatt hours;
  (ii) End users of the subsystems or measures are households/communities/SMEs.

Since the geographical boundary of the proposed PoA is Bangladesh, which is a LDC, if energy savings achieved by a CPA included in the proposed PoA achieve at a scale of no more than 20GWh_e or 60GWh_{th} per year, the PoA is additional. Since one of eligibility criteria for inclusion of a CPA under the PoA is “The achieved energy saving of a CPA at a scale of no more than 60 GWh_{th} per year” as described in Part I, B.2. of the PoA-DD, CPAs under the PoA satisfy Para 9 (a) of the guideline and thus additionality of the proposed PoA is demonstrated.

Regarding the demonstration of additionality as per “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”, JQA raised CAR01-02 as follows:

CAR01: The CME/PP are requested to demonstrate additionality of CPAs to be included in the PoA based on the latest version of "Guidelines on the demonstration of additionality of small-scale project activities" and to specify which barrier(s) prohibit(s) the project activity.

Resolution: The CME/PP have changed the project design so as to include only microscale CPAs to the proposed PoA. Therefore, demonstration of additionality based on "Guidelines on the demonstration of additionality of small-scale project activities" for small scale activities is not applicable.

CAR02: Since Type II energy efficiency project activities that aim to achieve energy savings at a scale of no more than 20 GWh_e or 60 GWh_{th} per year for microscale project activities are also to be included in the PoA, the CME/PP are requested to demonstrate additionality based on the latest version of "Guidelines for demonstrating additionality of

microscale project activities" for such projects.

Resolution: Demonstration of additionality of the PoA based on Para 9 (a) of "Guidelines for demonstrating additionality of microscale project activities" is added in Part I, B.1. of the PoA-DD. A eligibility criterion for demonstration of additionality is also revised to “Each CPA should claim energy saving of no more than 60 GWh_{th} per year and emission reductions comparable to that for every year to meet the requirements of guideline of “Demonstrating additionality of micro scale project activities”” as par Para 9 (a) of the guideline.

From the assessment above, JQA confirms that the additionality of the proposed PoA is demonstrated in accordance with “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” (Version 03.0) and “Guidelines for demonstrating additionality of microscale project activities” (Version 05.0).

In conclusion, the proposed PoA satisfies Section 7.12.8. of VVS.

3.7.6. Assessment of prior consideration of the CDM

Since the start date of the proposed PoA is the date of publication of the PoA-DD for global stakeholder consultation as per Para 159 (b) of PS, demonstration of prior consideration of the CDM is not relevant to the PoA as per Section 8.5.7. of VVS. Therefore, Section 7.12.9. of VVS is not applicable to the PoA.

3.7.7. Identification of alternatives

As already described in Section 3.7.5. of this report, additionality of the PoA is demonstrated based on “Guidelines for demonstrating additionality of microscale project activities” (Version 05.0) referred to in “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” (Version 02.0). Therefore, identification of alternatives is not relevant. Therefore, Section 7.12.10. of VVS is not applicable to the PoA.

3.7.8. Investment analysis

As already described in Section 3.7.5. of this report, additionality of the PoA is demonstrated based on “Guidelines for demonstrating additionality of microscale project activities” (Version 05.0) referred to in “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” (Version 02.0). Therefore, barrier analysis is not relevant. Therefore, Section 7.12.11. of VVS is not applicable to the PoA.

3.7.9. Barrier analysis

As already described in Section 3.7.5. of this report, additionality of the PoA is demonstrated based on “Guidelines for demonstrating additionality of microscale project activities” (Version

05.0) referred to in “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” (Version 02.0). Therefore barrier analysis is not relevant. Therefore, Section 7.12.12. of VVS is not applicable to the PoA.

3.7.10. Common practice analysis

As already described in Section 3.7.5. of this report, additionality of the PoA is demonstrated based on “Guidelines for demonstrating additionality of microscale project activities” (Version 05.0) referred to in “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” (Version 02.0). Therefore, common practice analysis is not relevant. Therefore, Section 7.12.13. of VVS is not applicable to the PoA.

3.7.11. Monitoring plan

1) Monitoring parameters

The parameters to be monitored by each CPA listed in Part II, E.7.1 of the PoA-DD are summarized in Table 8.

Table 8 Parameters to be monitored by each generic CPA

Parameter	Unit	Description
$NB_{i,j,k,l,y}^{PJ}$	Number	Number of batches on an existing dyeing machine *i* in the project dyeing for brightness of color *j,* material *k* and at a load of *l* in year y
$EC_{i,j,k,l}^{BL,Batch,dyeing}$	kWh/batch	Electricity consumption of an existing dyeing machine *i* for a batch in the baseline dyeing process for brightness of colour *j,* material *k* and at a load of *l*
$EC_{i,j,k,l}^{PJ,Batch,dying}$	kWh/batch	Electricity consumption of an existing dyeing machine *i* for a batch in the project dyeing process for brightness of color *j,* material *k* and at a load of *l* in a year y
$WC_{i,j,k,l}^{BL,Batch}$	liter/batch	Water consumption of an existing dyeing machine *i* for a batch in the baseline dyeing process for brightness of colour *j,* material *k* and at a load of *l*
$WC_{i,j,k,l}^{PJ,Batch}$	liter/batch	Water consumption of an existing dyeing machine *i* for a batch in the project dyeing process for brightness of colour *j,* material *k* and at a load of *l*
$SC_{i,j,k,l}^{BL,Batch}$	ton-steam/ batch	Steam consumption of an existing dyeing machine *i* for a batch in the baseline dyeing process for colour *j*, material *k* and at a load of *l*
$SC_{i,j,k,i}^{PJ,Batch}$	ton-steam/ batch	Steam consumption of an existing dyeing machine *i* for a batch in the project dyeing process for colour *j*, material *k* and at a load of *l*
$EG_{Gen,y}^{l}$	kWh/ year	Amount of electricity generated from captive generators at the factories or isolated grid in year y
$FC_{Gen,y}$	m^3/year	Fuel consumption of captive generators or power plants of isolated grid

Parameter	Unit	Description
		in year y

Table 9 summarizes how the monitoring parameters provided in the PoA-DD satisfy the relevant monitoring requirements provided in AMS-II.D. (Version 12). Note that Para 13 of AMS-II.D. is not relevant to the proposed PoA that targets only existing dyeing factories.

Table 9 Requirements of AMS-II.D. and monitoring plan for a CPA

Methodological requirement	Relevant parameters	Description in Part II, B.6.2. and/or B.7.1. of the PoA-DD
12. In the case of replacement, modification and retrofit measures the monitoring shall consist of: (a) Documenting the specifications of the equipment replaced;	$EC_{i,j,k,l}^{BL,Batch,dying}$ $WC_{i,j,k,l}^{BL,Batch}$ $SC_{i,j,k,i}^{BL,Batch}$	The CPA under the PoA will not replace equipment (dyeing machines) but replaces dyeing process. Therefore, this requirement is understood as documenting the type of baseline batch (machine, colour/shade, material and load) and its electricity, steam and water consumption in the context of the proposed PoA. This monitoring will be implemented by the following two ways (in most of garment and textile factories in Bangladesh, neither meters nor process control and energy management systems are installed at dyeing machines and thus *ex-post* option will likely to be dominant): - *Ex-ante* monitoring when meters or process control and energy management systems are installed in existing dyeing machines - *Ex-post* monitoring when neither meters nor process control and energy management systems are installed in existing dyeing machines and each of them will be newly installed for the purpose of CDM monitoring. These two ways of monitoring are described in B.6.2. and B.7.1. as follows: - *Ex-ante* measurement through meters or energy management systems installed to dyeing machines if available. - If meters or energy management systems are not available prior to project implementation, *ex-post* measurement will be conducted in parallel with the project through meters and energy management systems installed. In this way, this methodological requirement is appropriately addressed by the monitoring plan for a CPA under the PoA.
(b) Metering the energy use of the industrial or mining and mineral production facility,	$NB_{i,j,k,l,y}^{PJ}$ $EC_{i,j,k,l}^{PJ,Batch,dying}$ $WC_{i,j,k,l}^{PJ,Batch}$ $SC_{i,j,k,i}^{PJ,Batch}$	The process affected by the project activity is the dyeing process of each batch. Its energy use (electricity, steam and water consumption) will be metered as described in Part II, B.7.1. of the PoA-DD as follows:

Methodological requirement	Relevant parameters	Description in Part II, B.6.2. and/or B.7.1. of the PoA-DD
processes or the equipment affected by the project activity;		1) $NB_{i,j,k,l,y}^{PJ}$: Recorded daily at factories. 2) $EC_{i,j,k,l}^{PJ,Batch,dying}$, $WC_{i,j,k,l}^{PJ,Batch}$ and $SC_{i,j,k,l}^{PJ,Batch}$: *Ex-post* measuring for each batch based on meters or process control and energy management system installed in dyeing machines at factories. Aggregated daily recorded data monthly. Therefore, this methodological requirement is appropriately addressed by the monitoring plan for generic CPA under the PoA.
(c) Calculating the energy savings using the metered energy obtained from sub-paragraph (b).	$Q_{discharge}^{Pump}$ η_{motor} η_{pump} H_{total} ρ g FC_{boiler}^{Fuel} SGC_{boiler}^{Fuel} NCV_{boiler}^{Fuel} ρ_{boiler}^{Fuel} $EF_{CO2}^{Fuel,boiler}$ EF_{CO2}^{Elec} NCV_{Gen}^{Fuel} ρ_{Gen}^{Fuel} $EF_{CO2}^{Fuel,gen}$ $EG_{Gen,y}^{Fuel}$ $FC_{Gen,y}^{Fuel}$	In order to calculate the energy savings (and GHG emission reductions) using the metered energy data, specific energy consumptions and CO_2 emission factor are planned to be *ex-ante* reported or *ex-post* monitored as follows: 1) $Q_{discharge}^{Pump}$, η_{motor} , η_{pump} , H_{total} , ρ , g , : As described in Part II, B.6.1. and B.6.2. of the PoA-DD, EC_{Water}^{Pump} (electricity consumption for pumping groundwater to the factories; kWh/liter) is determined *ex-ante* by using parameters available from the specifications and information of pumps and constants. 2) FC_{boiler}^{Fuel} , SGC_{boiler}^{Fuel} , NCV_{boiler}^{Fuel} , ρ_{boiler}^{Fuel} , $EF_{CO2}^{Fuel,boiler}$: As described in Part II, B.6.1. and B.6.2. of the PoA-DD, EF_{CO2}^{Steam} (CO_2 emission factor of steam generation at the factories) is determined *ex-ante* by using parameters available from the specifications of pumps and default values. 3) NCV_{Gen}^{Fuel} , ρ_{Gen}^{Fuel} , $EF_{CO2}^{Fuel,gen}$, $EG_{Gen,y}^{Fuel}$, $FC_{Gen,y}^{Fuel}$: As described in Part II, B.6.1., B.6.2. and B.7.1. of the PoA-DD, EF_{CO2}^{Elec} (CO_2 emission factor of the electricity used at the factories for dyeing) is determined *ex-post* using the default values (NCV_{Gen}^{Fuel} , ρ_{Gen}^{Fuel} , $EF_{CO2}^{Fuel,gen}$) and the *ex-post* monitoring data ($EG_{Gen,y}^{Fuel}$ and $FC_{Gen,y}^{Fuel}$) when electricity is supplied from isolated grid or captive power generators. 4) EF_{CO2}^{Elec} : If the CPA factory is supplied from Bangladesh national grid, this parameter is determined *ex-ante* based on the Bangladesh DNA's official publication **(Ref. 14)**. Therefore, this methodological requirement is appropriately addressed by the monitoring plan for a CPA under the PoA.

Methodological requirement	Relevant parameters	Description in Part II, B.6.2. and/or B.7.1. of the PoA-DD
In the case of project activities involving several facilities, the monitoring procedure as described above shall apply for each facility.	$EC_{i,j,k,l}^{BL,Batch,dying}$ $EC_{Water}^{Pumping}$ $WC_{i,j,k,l}^{BL,Batch}$ $WC_{i,j,k,l}^{PJ,Batch}$ $SC_{i,j,k,i}^{BL,Batch}$ $SC_{i,j,k,i}^{PJ,Batch}$	As noted from Part II, B.6.2. and B.7.1. of the PoA-DD, monitoring of baseline/project electricity water and steam consumption is implemented per batch according to machine, color, material and load. Therefore, the monitoring procedure specified above will be applied for each batch with different machine, colour, material and load. Therefore, this methodological requirement is appropriately addressed by the monitoring plan for a CPA under the PoA.

Regarding the compliance of the monitoring plan with AMS-II.D., JQA raised CL15 as follows:

CL15: The CME/PP are requested to justify how the monitoring parameters in Part II, B.7.1 of the PoA-DD satisfy AMS-II.D. with respect to;

- Para 12 (a): Documenting the specifications of the equipment replaced.
- Para15 (for PoA; if applicable): The monitoring should include a check if the number of project activity equipment distributed by the project and the number of scrapped equipment correspond with each other. For this purpose, scrapped equipment should be stored until such correspondence has been checked. The scrapping of replaced equipment should be documented and independently verified.

Resolution: It was confirmed as follows:

- Para 12 (a): Specifications of the replaced dyeing process will be recorded by the parameters $EC_{i,j,k,l}^{BL,Batch,dying}$ $WC_{i,j,k,l}^{BL,Batch}$ and $SC_{i,j,k,i}^{BL,Batch}$.
- Para15: This is not applicable since the proposed PoA does not involve replacement of equipment (dyeing machines).

Regarding the description of the monitoring plan in Part II, B.7.1 of the PoA-DD, JQA raised CL16 as follows:

CL16: Regarding the means of monitoring described in in Part II, B.7.1 of the PoA-DD, the following issues are to be clarified:

- The measurement method for $SC_{i,j,k,l}^{PJ,Batch}$ and $SC_{m,y}^{PJ}$ includes two different ways, namely, calculation based on the dyeing charts and measurement by a steam meter. Please clarify which method is actually used.
- It is not specified what kind of monitoring equipment is used for monitoring of $EC_{flesh,water}^{PJ,pumping}$, $EC_{waste,water}^{PJ,pumping}$, $EG_{gen}^{PJ,fuel}$, $FC_{gen}^{PJ,fuel}$, $SP_{steam}^{PJ,fuel}$ and $FC_{steam}^{PJ,fuel}$, and what QA/QC procedures (e.g. calibration) are applied to them.

Resolution: These issues are clarified as follows:

- The parameter $SC_{m,y}^{PJ}$ is removed since energy savings other than dyeing machines are excluded from the project technologies. The measurement method for $SC_{i,j,k,l}^{PJ,Batch}$

is specified as “measuring for each batch based on flow meters or process control and energy management system installed to dyeing machines at factories”.

- $EC_{waste,water}^{PJ,pumping}$ is removed since energy consumption from wastewater pumping is excluded from the baseline/project emission sources. The monitoring parameter $EC_{flesh,water}^{PJ,pumping}$ is revised to be determined *ex-ante* based on the specifications of pumps in a conservative manner. $EG_{gen}^{PJ,fuel}$ is revised to $EG_{Gen,y}^{Fuel}$ and electricity meter will be used for monitoring as described in Part II, B.7.1 of the PoA-DD. $FC_{gen}^{PJ,fuel}$ is revised to $FC_{Gen,y}^{Fuel}$ and flow meter is planned to be used for monitoring as described in Part II, B.7.1 of the PoA-DD. $SP_{steam}^{PJ,fuel}$ and $FC_{steam}^{PJ,fuel}$ are revised to be determined *ex-ante* based on the specifications of boilers in a conservative manner. Calibration of meters and cross-check with the calculation from dyeing charts are also added as QA/QC procedures for these monitoring parameters.

Regarding the method of data cross-check used by CME/PP, JQA raised CL17 as follows:

CL17: It is not clear how "dye bath water ratio" is used for cross-check of $WC_{i,j,k,l}^{PJ,Batch}$ and $WC_{m,y}^{PJ}$, which are measured by scales attached to the water tanks, since water consumption by a dyeing batch cannot be determined solely by the "dye bath water ratio".

Resolution: The description is corrected to “cross check with calculations from dyeing charts”.

Through the resolution of above CLs, JQA confirms that the monitoring plan for a CPA complies with AMS-II.D.

2) Implementation of the monitoring

According to Part II, B.7.2 of the PoA-DD, Green Project W.S.T® Limited will act as the overall supervisor and prepare a monitoring report periodically (typically annually) to the DOE by using the reports from factories.

W.S.T has prepared the Operation and Monitoring Manual **(Ref. 16)**. According to the manual and Part II, B.7.2. of the PoA-DD, data is collected, aggregated and archived based on the following procedure:

1) CPA factory dyeing operator or supervisor will write down initial and final reading in the dyeing registered book before loading and after unloading of the fabric from water flow meter/steam flow meter/electricity meter, or process control and energy management system installed in the dyeing machine.
2) The Water Ambassador of W.S.T will responsible to collect water/steam/electricity consumption data and other relevant data monthly, supported by CPA textile factory management.
3) The Water Ambassador of W.S.T will report to the Team Leader of W.S.T regarding the latest monitoring data of each CPA.

4) The Team Leader of W.S.T reports monthly data to the CDM Record Keeping Team managed by the Merchandising Coordinator of W.S.T. The CDM Record Keeping Team will input the information into monthly and annual CPA database format **(Ref. 17, 18)**.
5) The CDM Management Team managed by the CDM Manager of W.S.T will review the monthly and annual CPA database format and prepare monitoring report for verification by a DOE. Parameters not monitored at CPA factories such as emission factors will be collected by the CDM Management Team. The monitoring report for verification is prepared with the support from PEAR.

Furthermore, according to the Operation and Monitoring Manual **(Ref. 16)**, CDM Technical Team managed by the Assistant Project Supervisor of W.S.T will provide training for meter operation and maintenance to CPA textile factory dyeing operator/supervisor and CDM responsible person. The CDM Technical Team of W.S.T will provide training program to CPA factories before the start of the CPA monitoring and once in a year. Training programs and records will be kept as hard copies for each CPA. Since almost all textile and garment factories in Bangladesh have never measured water, steam and electricity consumption of the dyeing machines, metering equipment will be newly installed for the purpose of implementation of CPA under the PoA in most cases. Therefore, the training program of CPA will include the following topics:

- Water flow meter operating
- Measurement of water consumption per batch
- Steam flow meter operating
- Measurement of steam consumption per batch
- Electricity meter operating
- Measurement of electricity consumption per batch
- Procedure of record keeping in dyeing registered book

JQA confirms on-site that the CEO of W.S.T. has already assigned the Water Ambassador, the Team Leader, the Merchandising Coordinator, the CDM Manager and the Assistant Project Supervisor as well as team members for CDM Management Team, CDM Record Keeping Team and CDM Technical Team for the purpose of implementation of the monitoring plan of CPAs under the PoA. Through the interview with the staff of W.S.T, JQA confirms that they have educational background and work experience in the field of dyeing and well understand the technologies/measures and monitoring method implemented by the PoA.

The data management and QA/QC procedures are described in Part II, B.7.2 of the PoA-DD as follows:

- Each implementer shall collect data and archive them electronically using the common template developed by the CME. The electronic files and the hard copy shall be sent to CME.
- The CME will develop an appropriate electronic template for archiving all data of every

activity. After reporting data from implementers, the CME shall check the data. If there are any errors found, they will be checked with original data.

- The CME will calculate emission reductions for each CPA supported by PEAR, and store the outputs in hard disks as well as hard copy printouts.
- The water flow meters, steam flow meters and electricity meters will be installed in line with relevant standards and calibrated by a qualified organization at least once every two years. The installation and maintenance of monitoring equipment will be implemented in line with the manufacture's specification. The process management system will also be installed according to system providers' manual and standards.

JQA confirms that the monitoring plan is in line with AMS-II.D., AMS-I.D. and "Tool to calculate the emission factor for an electricity system" and CPA implementers and W.S.T are able to implement the monitoring plan for a CPA and the means of implementation including data management and QA/QC are sufficient and appropriate.

Therefore, the monitoring plan for a CPA satisfies requirements in Section 7.12.14. of VVS.

3.8. Environmental impacts

According to Part I, E.1 of the PoA-DD, the environmental analysis is conducted at PoA level. Through the desk review and on-site assessment, JQA confirms that CPAs to be included in the proposed PoA have common features with regard to technology, target group, implementation structure, etc. In addition, the proposed PoA has basically less negative environmental impacts and also its impacts are identical regardless of location. Therefore, JQA considers that the environmental analysis at the PoA level is appropriate.

As described in Part I, E.2 of the PoA-DD, the positive environmental impacts are expected by the implementation of the proposed PoA as follows:

- The project will contribute to ensure future water security in Bangladesh
- The project will contribute to ease land subsidence having occurred.

The existence of problems of scarcity of groundwater resources and land subsidence is confirmed through the review of publicly available information such as Shahjalal Khandaker, Jahidul Hassan and Showkat Osman "SAVING UNDER GROUND WATER BY REUSING TEXTILE WASH WATER IN PRETREATMENT PROCESS (SCOURING AND BLEACHING) OF COTTON GOODS", IJASETR (ISSN: 1839-7239), June 2012, Vol. 1, Issue 3[17] and "Groundwater loss puts city at risk", The Daily Star, January 8, 2012[18], and the interview with relevant stakeholders such as dyeing factories and dye chemical suppliers. Therefore, JQA confirms that the positive environmental impacts described in Part I, E.2 of the PoA-DD are described correctly.

According to Part I, E.2 of the PoA-DD, the Environmental Impact Assessment (EIA) is not

[17] http://www.setscholars.org/index.php/ijasetr/article/download/190/74
[18] http://archive.thedailystar.net/newDesign/news-details.php?nid=217458

required to CPAs under the proposed PoA. Through the review of "The Environmental Conservation Rule of Bangladesh, 1997" **(Ref. 19)** and publicly available information such as "A review of environmental policy and legislation in Bangladesh", Alexandra Clemett, 2006[19], JQA confirms that energy saving measures by dyeing process optimization, cold brand scouring and yarn optimization are not listed as activities that are required for EIA. Therefore, the information in the PoA-DD is considered to be correct. Regarding the EIA, JQA raised CL18 as follows:

> **CL18:** The CME/PP are requested to clarify whether the EIA is required to CPAs under the PoA in accordance with the Bangladesh laws and regulations.
>
> **Resolution:** The EIA is not required to the CPAs under the PoA. The CME/PP has provided "The Environmental Conservation Rule of Bangladesh, 1997" **(Ref. 19)** as an evidence. Through the review of the document, JQA confirms that EIA is not legally required to CPAs under the PoA in Bangladesh.

JQA confirms that the environmental analysis provided in the PoA-DD is appropriate and the EIA is not required by the host Party legislation. Therefore, the PoA satisfies requirements in Section 7.13. of VVS.

3.9. Local stakeholder consultation

According to Part I, F.1. of the PoA-DD, the local stakeholder consultation is conducted at the PoA level. Through the desk review and on-site assessment, JQA confirms that CPAs to be included in the proposed PoA have common features with regard to project design, technology, target group, implementation structure, etc. In addition, the proposed PoA has basically less negative social impacts. Therefore, JQA considers that the LSC at the PoA level is appropriate.

As described in Part I, F.1. of the PoA-DD, local stakeholders including the vice president of BGMEA, people from textile and garment industry and experts from dyeing machine manufacturer were invited on 05/11/2012 at Uttara Club (Lotus Hall), Dhaka, to gather comments on the PoA. The stakeholders were invited by invitation letters, e-mails or telephone. 54 participants attended the LSC meeting. After the brief introduction of the PoA by the CME/PP, several clarifications and questions were made from the stakeholders. CME/PP answered to them as described in Part I, F.2. of the PoA-DD. Note that the process of the local stakeholder consultation is in accordance with the requirements of the Gold Standard[20] as the PP aims to get the PoA certified under the Gold Standard **(Ref. 20, 21)**.

According to the PoA-DD, only clarifications and questions about the proposed PoA were raised and no negative comments were received on the proposed PoA by the stakeholder consultation process. JQA interviewed 6 persons from dyeing factories and 2 persons from dye chemical suppliers who participated in the LSC meeting during the on-site assessment

[19] http://www.dfid.gov.uk/r4d/PDF/Outputs/Water/R8161-Section2.pdf
[20] http://www.cdmgoldstandard.org/project-certification/rules-and-toolkit

and confirmed that they welcomed the PoA and had no negative opinion. Therefore, no change of the PoA design in response to the local stakeholder consultation is deemed necessary.

JQA confirms that the stakeholder consultation is held in transparent manner and the CME/PP took due account of the stakeholders comments. Therefore, the proposed PoA satisfies requirements in Section 7.14. of the VVS.

3.10. Specific validation requirements for small-scale project activities

3.10.1. Project activity eligibility

As described in Section 3.7.5. of this report, the proposed PoA consists of microscale CPAs with energy savings not more than $60GW_{th}$ per year. Therefore, CPAs to be included in the proposed PoA are naturally within the small-scale activity thresholds of $60GWh_e$ per year or $180GW_{th}$ per year for Type II small-scale project activity. CPAs in the PoA include only one component and applies a small-scale approved methodology, AMS-II.D. Therefore, a CPA in the proposed PoA satisfies Section 8.1.1. of the VVS.

3.10.2. Debundling

For assessing debundling, JQA has taken into account "Guidelines on assessment of de-bundling for SSC project activities" (Version 03.0) as per Section 8.1.2. of VVS. "Section II. GUIDANCE FOR DETERMINING THE OCCURRENCE OF DEBUNDLING UNDER A PROGRAMME OF ACTIVITIES (PoA)" of the guideline requires that:

"8. For the purposes of registration of a PoA, a proposed small-scale CPA of a PoA shall be deemed to be a de-bundled component of a large scale activity if there is already an activity, which satisfies both conditions (a) and (b) below:

(a) Has the same activity implementer as the proposed small scale CPA or has a coordinating or managing entity, which also manages a large scale PoA of the same technology/measure, and;
(b) The boundary is within 1 km of the boundary of the proposed small-scale CPA, at the closest point."

As described in Part I, B.2. of the PoA-DD, the following eligibility criterion is set to ensure that a CPA is not a de-bundled component of a large scale project activity: "8. Each CPA should be confirmed as a single project, which is not a de-bundled component of another large-scale CPA or CDM project activity as per the latest guidance given in CDM EB."

Therefore, the proposed PoA satisfies Section 8.1.2. of VVS.

3.10.3. Additionality

As described in Section 3.7.5. of this report, the proposed PoA consists of microscale projects

as CPAs and its additionality is demonstrated based on “Guidelines for demonstrating additionality of microscale project activities” (Version 05.0). Therefore, the proposed PoA satisfies Section 8.1.3. of the VVS.

3.11. Specific validation requirements for PoA/CPA

3.11.1. Coordinating/managing entity and participants in a PoA

According to Section 8.5.1 of VVS, the DOE shall assess the management system described in the PoA-DD in accordance with the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”. According to Para 19 of the Standard (Version 03.0), the CME shall develop and implement a management system that includes the followings:

(a) A clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies;
(b) Records of arrangements for training and capacity development for personnel;
(c) A procedure for technical review of inclusion of CPAs;
(d) A procedure to avoid double counting (e.g. to avoid the case of including a new CPA that has already been registered either as a CDM project activity or as a CPA of another PoA);
(e) Records and documentation control process for each CPA under the PoA;
(f) Measures for continuous improvements of the PoA management system;
(g) Any other relevant elements.

Regarding the establishment of the PoA management system in compliance with the above requirements, JQA raised CL19 as follows:

CL19: The CME is requested to develop and provide the following documents used in its management system as per the PoA-DD:
- Database format for CPAs
- Monthly and annual status report format used for monitoring by each CPA
- W.S.T's internal procedures for technical review of inclusion of CPAs
- Training program for CPA implementers
- Operation and monitoring manual

Resolution: The CME has developed the following documents used for PoA management system:
- Monthly and annual database format used for recording data of each CPA inputted by CME based on the dyeing registered book produced at each CPA **(Ref. 17, 18)**.
- Operation and Monitoring Manual including W.S.T's internal procedures for technical review of inclusion of CPAs, training program for CPA implementers, etc. **(Ref. 16)**

JQA confirms that the CME develops and implements a management system that includes

(a)-(g) as summarized below.

(a) A clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies

As described in Part I, Section C of the PoA-DD, W.S.T is responsible for defining and inclusion of each CPA supported by PEAR. According to the Operation and Monitoring Manual **(Ref. 16)**, the process of inclusion of a CPA is as follows:

1) If any textile factory shows interest in the energy and water saving through process optimization promoted by the PoA, the Water Ambassador of W.S.T (CME) will audit the potential CPA factory and prepare a report on machinery, utility and current dyeing practice and compliance with eligibility criteria.
2) If the potential CPA factory is considered to be eligible to be a CPA under the PoA, W.S.T will conduct some trial dyeing process optimization. The Team Leader of W.S.T will prepare a report regarding the result of trial and submit it to the CDM Management Team managed by the CDM Manager of W.S.T for technical review.
3) The CDM Management Team of W.S.T will review the report and pass it to the CEO of W.S.T and PEAR.
4) Based on the report and confirmation of PEAR on the conformity of CPAs with eligibility criteria, the CEO of W.S.T and PEAR will finally decide inclusion of CPA.

JQA confirms on-site that the CEO of W.S.T has already assigned the Water Ambassador, the Team Leader, the CDM Manager and team members for CDM Management Team for the purpose of inclusion of a CPA under the PoA. Through the interview with the staff of W.S.T, JQA confirms that they have educational background and work experience in the field of dyeing and well understand the objective of the PoA and technology/measure employed by a CPA under the PoA. Since eligibility criteria are double-checked and the final decision for inclusion is made by the CEO of W.S.T as well as PEAR, which has sufficient knowledge and experience of CDM, the competencies of personnel involved in the process of inclusion of CPAs are considered to be sufficient.

(b) Records of arrangements for training and capacity development for personnel

According to Part I, Section C of the PoA-DD, training of CDM related matters including CPA inclusion is organized by PEAR and/or international organizations such as GIZ once a year. Furthermore, W.S.T will provide training program before the start of the monitoring of CPA and once a year afterward. Training program and records of these trainings are kept by W.S.T. As a supplement to the Operation and Monitoring Manual **(Ref. 16)**, W.S.T has also prepared the format of the training log **(Ref. 22)**.

In this way, training and capacity development for personnel involved in the process of inclusion of CPAs, as well as CPA implementers are sufficiently arranged and recorded by CME.

(c) A procedure for technical review of inclusion of CPAs

As described in (a) above, the procedure for technical review of inclusion of CPAs is sufficiently established. Before the inclusion of a CPA, W.S.T will conduct the detailed technical audit as well as trial dyeing process optimization to assess technical feasibility as well as eligibility as a CPA under the PoA. Inclusion of a CPA will be finally decided by the CEO of W.S.T and PEAR.

In this way, the procedure for technical review of inclusion of CPAs is established by CME.

(d) A procedure to avoid double counting

The procedure to avoid double counting is part of the process of inclusion because an eligibility criterion, "2. Each CPA is a new project that is not a registered CDM or CPA under the other PoA", specifies the condition to avoid double counting. As described in Part I, Section C of the PoA-DD, W.S.T technically reviews at the time of CPA inclusion that any textile and garment factory under the CPA does not belong to another CPA under this PoA or another registered CDM project activity or another CDM PoA.

In this way, the procedure to avoid double counting is established by CME.

(e) Records and documentation control process for each CPA under the PoA

The records and documentation control process for each CPA under the PoA is described in Part I, Section C, (2) of the PoA-DD. Through the review of monthly database format **(Ref. 17)**, annual database format **(Ref. 18)** and CPA dyeing machine format **(Ref. 23)**, JQA confirms that all the data and information listed in Part I, Section C, (2) of the PoA-DD will be monitored by these database format as shown in Table 10.

Table 10 Data and information collected by each database format

Monthly database format	Annual database format	CPA dyeing machine capacity format
1) Names of factories and their addresses 2) ID numbers of the CPAs 3) Starting dates of CPAs 4) Order details: Order No., Article No., Batch No., Batch quantity (kg), Fabric and Colour 5) Dye type 6) Dyeing Category (colour / material) 7) Dyeing machine name 8) Fabric load (%) 9) Consumption: Water consumption (m3/batch), Steam consumption (ton/batch) and Electricity consumption	1) Names of factories and their addresses 2) ID numbers of the CPAs 3) Starting dates of CPAs 4) Year: Year and Month 5) Consumption: Water consumption (m^3/month), Steam consumption (ton/month) and Electricity consumption (MWh/month) 6) Emissions ($tonCO_2e$/month)	1) Serial No. of dyeing machine 2) Machine name 3) Rated fabric capacity in kg

(MWh/batch) 10) Emissions (tCO2e/batch)		

As described in 2) in Section 3.7.11 of this report, data recorded by dyeing operator or supervisor at CPA factories are collected by the Water Ambassador of CME every month and reported to the Team Leader of CME. Then the Team Leader provides the data to the Merchandising Coordinator and he/she will input the information into monthly and annual CPA database format. The CDM Manager of W.S.T will review the monthly and annual CPA database format and prepare the monitoring report for verification by a DOE. The monthly and annual CPA database formats are commonly used for every CPA for efficient document control and management under the PoA. Through the establishment of such clearly defined documentation control process and well-prepared database formats, CME will be able to collect and archive necessary data for all CPAs. Therefore, the records and documentation control process for the PoA is confirmed to be well-considered and established.

(f) Measures for continuous improvements of the PoA management system

As described in Part I, Section C, (2), Table 5 of the PoA-DD, W.S.T will review each CPA and the PoA as a whole annually and assess the performance of the PoA management system with feedbacks from CPA implementers and other factories through audits. As necessary, revisions will be done to the PoA management system.

(g) Any other relevant elements

There are no other relevant elements with respect to the management system.

Based on the assessment of (a)–(g) above, JQA confirms that the management system described in the PoA-DD is in accordance with the “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” and thus satisfies requirements in Section 8.5.1. of VVS.

3.11.2. CPA design document

The assessment of compliance of a CPA with the eligibility criteria of the proposed PoA will be checked by each CPA and thus not relevant to the validation of the PoA.

The separate validation report for CPA-1 **(Ref. 4)** provides the desk review, follow-up interview and site visit implemented to assess the compliance of CPA-1 with the eligibility criteria of the proposed PoA, and compliance of CPA-1 with requirements in Section 8.5.2. of VVS.

3.11.3. Description of a PoA/CPA

Regarding the consistency between the description in “Part I. Programme of activities” and “Part II. Generic component project activity (CPA)” in the PoA-DD, JQA confirms that all relevant descriptions are appropriately updated so as to ensure consistency between the PoA

and the generic CPA.

The framework developed for implementation of the PoA is sufficiently described in Part I, Section C of the PoA-DD. Furthermore, a CPA under the PoA is fully defined in Part II of the PoA-DD.

Therefore, the proposed PoA satisfies Section 8.5.3. of VVS.

3.11.4. Application of multiple methodologies

Since only one methodology, AMS-II.D., is applied to CPAs in the PoA, requirements regarding the application of multiple methodologies for PoA specified in "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities" (Version 03.0) are not relevant. Therefore, Section 8.5.4. of VVS is not applicable to the proposed PoA.

3.11.5. Boundary for the PoA in terms of geographical area

As described in Part I, A.5. of the PoA-DD, the geographical boundary of the proposed PoA is Bangladesh. Regarding the applicable national and/or sectoral policies and circumstances, JQA raised CL20 as follows:

> **CL20:** In establishing the boundary of the PoA, it is not clear how CME/PP have taken into consideration all applicable national and/or sectoral policies and regulations within that chosen boundary.
>
> **Resolution:** Through the interview with BGMEA, dyeing factories and dye chemical suppliers, JQA confirms that Bangladesh has no national and/or sectoral policies and regulations regarding the energy efficiency measures for dyeing factories and thus policies and regulations do not influence on the project boundary.

The boundary of the proposed PoA is set clearly and the proposed PoA satisfies Section 8.5.5. of VVS.

3.11.6. Start date of a CPA

Section 8.5.6. of VVS requires that DOE shall confirm that the start date of any CPA is on or after the start date of the PoA. This requirement is to be checked by CPA and thus not relevant to the PoA. Therefore, Section 8.5.6. of VVS is not applicable.

3.11.7. Prior consideration of the CDM

According to Para 205 (b) of PS, the start date of the proposed PoA is defined as the data of publication of the PoA-DD for global stakeholder consultation, 01/12/2012. Therefore, prior consideration described in Section 8.5.7. of VVS is not relevant.

3.11.8. Demonstration of additionality of the PoA as a whole

As described in Section 3.7.5. of this report, the additionality of the proposed PoA is

demonstrated in accordance with the "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities" (Version 03.0). Therefore, Section 8.5.8. of VVS is satisfied.

3.11.9. Eligibility criteria for inclusion of a CPA in the PoA

According to Para 16 of "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities" (Version 03.0), the eligibility criteria shall cover minimum of the followings:

(a) The geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA;
(b) Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo);
(c) The specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications;
(d) Conditions to check the start date of the CPA through documentary evidence;
(e) Conditions that ensure compliance with applicability and other requirements of single or multiple methodologies applied by CPAs;
(f) The conditions that ensure that the CPA meets the requirements pertaining to the demonstration of additionality as specified in section 3.1 above;
(g) The PoA-specific requirements stipulated by the CME including any conditions related to undertaking local stakeholder consultations and environmental impact analysis;
(h) Conditions to provide an affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development assistance;
(i) Where applicable, target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation);
(j) Where applicable, the conditions related to sampling requirements for the PoA in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities";
(k) Where applicable, the conditions that ensure that every CPA (in aggregate if it comprises of independent sub units) meets the small-scale or microscale threshold and remains within those thresholds throughout the crediting period of the CPA;
(l) Where applicable, the requirements for the debundling check, in case the CPAs belongs to small-scale or microscale project categories.

Eight eligibility criteria are finally defined as per (a) – (l) above, as described in Part I, B.2. and Part II, B.5. of the PoA-DD. JQA confirms that they satisfy Para 16 of "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities" (Version 03.0) as shown in Table 11.

Table 11 Assessment of the eligibility criteria

Para 14 of PoA Standard	Relevant eligibility criteria	Validation Comment
(a) The geographical boundary	1. Each CPA should target an	Criterion 1 clearly defines the

Para 14 of PoA Standard	Relevant eligibility criteria	Validation Comment
of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA;	existing textile and garment factory in Bangladesh and the registered name and address of a factory in each CPA should be given clearly.	geographical boundary of the CPA that is consistent with the geographical boundary of the PoA, Bangladesh.
(b) Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo);	1. Each CPA should target an existing textile and garment factory in Bangladesh and the registered name and address of a factory in each CPA should be given clearly. 2. Each CPA is a new project that is not a registered CDM or CPA under the other PoA.	Criterion 1 requires clear identification (name and address) of CPA that is necessary to detect double counting. Criterion 2 requires that any CPA shall be a new project. Therefore, criteria 1 and 2 address this requirement.
(c) The specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications;	3. Specifications of technologies/measures such as dyeing machines, dyeing methods, yarn types, boilers and pumps for water supply should be available.	Criterion 3 requires provision of specification of baseline technology/equipment of the CPA. W.S.T will technically audit candidate CPA factories based on the specifications to determine its eligibility to CPA under the PoA.
(d) Conditions to check the start date of the CPA through documentary evidence;	4. The start date (the date of signing of "Application of Membership of Green Project W.S.T. Limited and Participation of CDM-PoA") of any CPA should not be prior to 01 December 2012 that is the date of publication of the PoA-DD for global stakeholder consultation.	The start date of the CPA is confirmed through the check of "Application of Membership of Green Project W.S.T. Limited and Participation of CDM-PoA" based on this criterion.
(e) Conditions that ensure compliance with applicability and other requirements of single or multiple methodologies applied by CPAs;	5. Each CPA should meet the applicability and other requirements of AMS- II.D (version 12.0). This will be explained in each CPA as a demonstration of applicable condition. 6. Each CPA should claim energy saving of no more than	Eligibility of application of type II small-scale project activity is confirmed through the check of Criterion 6. Compliance with the applicability condition in AMS-II.D. is addressed by Criterion 5.

Para 14 of PoA Standard	Relevant eligibility criteria	Validation Comment
	60 GWh_{th} per year and emission reductions comparable to that for every year to meet the requirements of guideline of "Demonstrating additionality of micro scale project activities".	
(f) The conditions that ensure that the CPA meets the requirements pertaining to the demonstration of additionality as specified in section 3.1 above;	1. Each CPA should target an existing textile and garment factory in Bangladesh and the registered name and address of a factory in each CPA should be given clearly. 6. Each CPA should claim energy saving of no more than 60 GWh_{th} per year and emission reductions comparable to that for every year to meet the requirements of guideline of "Demonstrating additionality of micro scale project activities".	As described in Section 3.7.5. of this report, a CPA under the proposed PoA is microscale project and the additionality is demonstrated based on Para 9 (a) of "Guidelines for demonstrating additionality of microscale project activities" (Version 05.0). Criterion 6 is to satisfy the upper limit of the Type II microscale project activities and Criterion 1 is to satisfy the geographic location of the CPA is in LDC.
(g) The PoA-specific requirements stipulated by the CME including any conditions related to undertaking local stakeholder consultations and environmental impact analysis;8	N/A	Local stakeholder consultation and environmental impact analysis are undertaken at PoA level and thus setting of eligibility criteria to address (g) is not necessary.
(h) Conditions to provide an affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development assistance;	7. Any CPA that uses any public fund from Annex I parties should demonstrate that the public fund is not a diversion of official development assistance.	Criterion 7 requires CPA that uses any public fund from Annex I parties to demonstrate that the public fund is not a diversion of official development assistance.
(i) Where applicable, target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g.	1. Each CPA should target an existing textile and garment factory in Bangladesh and the registered name and address of a factory in each CPA should be given clearly.	Criterion 1 defines target group as an existing textile and garment factory in Bangladesh. No sub-grouping or limitation is necessary to apply AMS-II.D. and AMS-I.D. or introduction of energy

Para 14 of PoA Standard	Relevant eligibility criteria	Validation Comment
direct installation);9		efficiency measures by W.S.T
(j) Where applicable, the conditions related to sampling requirements for the PoA in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities";	N/A	Sampling is not applied to a CPA under the PoA and thus setting of eligibility criteria to address (j) is not necessary.
(k) Where applicable, the conditions that ensure that every CPA (in aggregate if it comprises of independent sub units) meets the small-scale or microscale threshold10 and remains within those thresholds throughout the crediting period of the CPA;	6. Each CPA should claim energy saving of no more than 60 GWh_{th} per year and emission reductions comparable to that for every year to meet the requirements of guideline of "Demonstrating additionality of micro scale project activities".	Criterion 6 is condition to ensure that every CPA meets the microscale threshold criteria.
(l) Where applicable, the requirements for the debundling check, in case the CPAs belongs to small-scale or microscale project categories.7	8. Each CPA should be confirmed as a single project, which is not a de-bundled component of another large-scale CPA or CDM project activity as per the latest guidance given in CDM EB.	Debundling check is ensured by Criterion 8.

Regarding the appropriateness and sufficiency of the eligibility criteria in the light of these requirements, JQA raised CL21-30 as follows:

CL21: Regarding the criterion "The name and the address of the factory are defined" described in Part I, B.2. and Part II, B.5 of the PoA-DD (A.2 and 2), it is highly unlikely that there are factories which name and address are not defined. The CME/PP are requested to revise this criterion more specifically so as to satisfy Para 16 (a) of "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities".

Resolution: The criterion is revised to "1. Each CPA should target an existing textile and garment factory in Bangladesh and the registered name and address of a factory in each CPA should be given clearly."

CL22: Regarding the criterion "There is unique identification of the target factory" described in Part I, B.2. and Part II, B.5 of the PoA-DD (B.2 and 4), it is necessary to specify what

"unique identification" is, and how the CME/PP determine the unique identification with reference to Para 16 (b) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.

Resolution: The criterion is revised to “2. Each CPA is a new project that is not a registered CDM or CPA under the other PoA” so as to be a condition that avoid double counting of emission reductions as per Para 16 (b) of the Standard.

CL23: Regarding the criterion “Is it possible to submit specification of technology/measure when the DOE validates or verify?” described as C.1. in Part I, B.2. and Part II, B.5 of the PoA-DD (C.1 and 5), the CME/PP shall describe specific technology/measure eligible for CPAs under the PoA with reference to Para 16 (c) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.

Resolution: The criterion is revised to “3. Specifications of technologies/measures such as specifications of dyeing machines, dyeing methods, yarn types, boiler specifications and specification of pumps for water supply should be available.” so as to be a condition that defines specifications of technology/measure as per Para 16 (c) of the Standard.

CL24: Regarding the criterion “The start date of a CPA is not, or will not be, prior to the commencement of validation of the PoA.” described in Part I, B.2. and Part II, B.5 of the PoA-DD (D.1. and 6), the CME/PP shall specify documentary evidence used as the basis of the start date of a CPA with reference to Para 16 (d) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.

Resolution: The criterion is revised to “4. The start date (the date of signing of "Application of Membership of Green Project W.S.T. Limited and Participation of CDM-PoA") of any CPA should not be prior to 01 December 2012 that is the date of publication of the PoA-DD for global stakeholder consultation.”

CL25: The criterion “If the achieved energy saving of a CPA is more than 60 GWh_{th} per year, a barrier due to prevailing practice is applied. The prevailing dyeing practice in Bangladesh Textile and Garment industry is reactive dyes for cellulose; disperse dyes for CVC and polyester” described in Part I, B.2. of the PoA-DD (F.1) and “If the above condition is not satisfied, a barrier due to prevailing practice in Bangladesh Textile and Garment industry that is reactive dyes for cellulose; disperse dyes for CVC and polyester would prevent occurrence of CPAs” described in Part II, B.5 of the PoA-DD (8), shall be unified and revised since these sentences do not give any objective criteria.

Resolution: The criterion is revised to “6. Each CPA should claim energy saving not more than 60GWh_{th} per year for meeting the requirements of guideline of “Demonstrating additionality of micro scale project activities” since only micro-scale projects come to be included in CPAs under the PoA.

CL26: The criterion “A CPA performs local stakeholder consultation (LSC) before the inclusion of SSC-CPA.”, which is described as in Part I, B.2. and Part II, B.5 of the PoA-DD (G.1 and 10), is contradicting with the description in Part I, F.1 of the PoA-DD that LSC is performed at the PoA level. In addition, the criterion “A CPA does not need to perform the environmental impacts analysis according to the regulation of Bangladesh”, described as in Part I, B.2. of the PoA-DD and in Part II, B.5 of the PoA-DD (G.2 and 11) is to be revised or deleted since it do not give any objective criterion. Refer to Para 16 (g) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.

Resolution: These criteria are removed. LSC meeting is conducted at the PoA level.

CL27: The criterion “A CPA does not use any fund from Annex I parties”, which is described in Part I, B.2. and Part II, B.5. of the PoA-DD (H.1 and 12), and the criterion “If a CPA uses a fund from Annex I parties then it does not result in a diversion of official development assistance”, which is description in Part I, B.2. and Part II, B.5 of the PoA-DD (H.2. and 13), are mutually exclusive and thus integrated into single eligibility criterion because, for inclusion, a CPA under the PoA need to satisfy all eligibility criteria specified in the PoA.

Resolution: These criteria are combined to “7. Any CPA that uses any public fund from Annex I parties should demonstrate the public fund is not a diversion of official development assistance”.

CL28: Regarding the criterion “A CPA-DD applies 95/10 (confidence /precision) for any necessary survey according” described in Part I, B.2. and Part II, B.5 of the PoA-DD (J.1. and 14), the CME/PP are requested to specify the parameters to which sampling will be applied.

Resolution: Since the sampling is not applied to CPAs under the PoA, this criterion is removed.

CL29: Regarding the criterion “Is the crediting period of a CPA is within the crediting period of the PoA?” described in Part I, B.2. and Part II, B.5 of the PoA-DD (M.1. and 17), the terminology of "crediting period of PoA" is inappropriate. Refer to the latest version of “Glossary: CDM Terms”.

Resolution: The criterion is removed. Since it is mandatory requirement based on Para 166 of PS not a specific to the PoA, this criterion is considered to be not necessary.

CL30: The CME/PP are requested to make a thorough review of eligibility criteria because they show a mixture of declarative sentences and interrogative sentences. Furthermore, it is not clear when yes or no each eligibility criterion is satisfied.

Resolution: All eligibility criteria are described as declarative sentences.

JQA confirms that the defined eligibility criteria cover all relevant requirements provided in

Para 16 (a)-(l) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” (Version 03.0), and are sufficiently objective, comprehensive and verifiable. Therefore, the established eligibility criteria satisfy Para 16 of the standard and the PoA satisfies Section 8.5.9. of VVS.

3.11.10. Crediting period of a PoA/CPA

As described in Part I, D.2. of the PoA-DD, the length of the proposed PoA is defined as 28 years 0 month and thus Section 8.5.10. of VVS is satisfied.

3.11.11. Monitoring plan for a PoA/CPA

As described in 3.1.11 of this report, monitoring plan for a generic CPA is in accordance with AMS-II.D. (Version 12). Therefore, the proposed PoA satisfies Section 8.5.11. of VVS.

3.11.12. Environmental analysis of a PoA

As described in Section 3.8. of this report, analysis of the environmental impacts is undertaken at the PoA level in compliance with the requirements of the CDM modalities and procedures. Therefore, Section 8.5.12. of VVS is satisfied.

3.11.13. Local stakeholder consultation

As described in Section 3.9. of this report, local stakeholder consultation is undertaken at the PoA level. The comments were invited from 54 stakeholders at the LSC meeting held on 05/11/2012 at Uttara Club (Lotus Hall), Dhaka. JQA confirms that the summary of the comments received is complete through the interview with attendees of the LSC meeting. Due account of comments are not required since only clarifications and questions were raised at the LSC meeting. From the information obtained, JQA confirms that the proposed PoA satisfies Section 8.5.13. of VVS.

3.11.14. Determination of occurrence of debundling under a PoA

As described in Section 3.10.2. of this report, the determination of occurrence of debundling is checked through eligibility criterion “8. Each CPA should be confirmed as a single project, which is not a de-bundled component of another large-scale CPA or CDM project activity as per the latest guidance given in CDM EB”. Therefore, CPA of the proposed PoA satisfies Section 8.5.14. of VVS.

3.11.15. Inclusion or renewable of a crediting period of a CPA under a registered PoA

Section 8.5.15. of VVS requires that the DOE shall assess the CPA and the specific CPA-DD against the latest version of the PoA to determine whether the CPA meets the requirements of the PoA. This requirement is for CPAs and thus not relevant to the PoA.

4. VALIDATION OPINION

Japan Quality Assurance Organization (JQA) as a DOE has performed the validation of SSC PoA “Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries”. The validation is based on the UNFCCC criteria for CDM including Article 12 of the Kyoto Protocol, modalities and procedures for CDM (Marrakesh Accord), subsequent decisions of COP/MOP and CDM-EB and host country criteria.

Standard auditing techniques are applied to the validation. The Validation Checklists for the PoA are prepared in order to report the nature of the issues raised by a DOE, the nature of the responses provided by CME/PP, the means of validation and the resulting changes in the PoA-DD in a transparent and unambiguous manner. The validation, including the document review, the follow-up actions and the resolution of outstanding CARs and CLs, provided JQA sufficient evidences to determine the fulfilment of all relevant UNFCCC criteria for CDM. The validation is based on the information made available to JQA during the validation process.

The project host party is Bangladesh and the Annex I party is Japan. Host Party fulfils the participation criteria and approved the PoA and authorized CME. The DNA of host party states that the PoA assists in achieving sustainable development. Annex I Party also fulfils the participation criteria and approved the PoA and authorized the PP.

The project correctly applies the approved small-scale baseline and monitoring methodology, AMS-II.D. “Energy efficiency and fuel switching measures for industrial facilities” (Version 12.0). For assessment of additionality, the PoA correctly applies “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” (Version 03.0) and “Guidelines for demonstrating additionality of microscale project activities” (Version 05.0). The PoA includes eligibility criteria to ensure that every CPAs included in the PoA satisfies the condition of additionality of microscale projects. Therefore, in the absence of CDM, none of the implemented CPAs would occur.

JQA concludes that the proposed PoA meets all the relevant UNFCCC and Host Party requirements. JQA determines that the proposed PoA is valid as a CDM programme of activities.

5. REFERENCES

Category 1: Submissions to CDM EB

1. F-CDM-SSC-PoA-DD “Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries” (Version 7.0, 21/04/2014)
2. F-CDM-SSC-CPA-DD “Energy and Water Saving Promotion for Textile Dyeing Process of Grameen Knitwear Textile and Garment Factory in Bangladesh” (Version 7.0, 21/04/2014)
3. SSC PoA Validation Report for “Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries” (Version 2.0, 01/05/2014)
4. SSC CPA Validation Report for “Energy and Water Saving Promotion for Textile Dyeing Process of Grameen Knitwear Textile and Garment Factory in Bangladesh” (Version 2.0, 01/05/2014)
5. Letter of Approval for the Programme of Activities “Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries” issued by Bangladesh DNA for Green Project W.S.T® Limited, Ref: DoE/Int.Con./CDM/2011/06/12, 16/03/2014
6. Approval of a CDM project and authorization of voluntary participation under the Kyoto Protocol by the Government of Japan for PEAR Carbon Offset Initiative Co., Ltd., Ref. No. 1404047, 04/04/2014
7. Modalities of Communication, 07/10/2013
8. Dyeing curve for GK for *ex-ante* estimation of baseline electricity/water/steam consumption
9. Steam and water calculation for GK with different material/colour/machine/load
10. Baseline electricity, steam and water consumption by GK (source of Appendix 4 of the CPA-DD)
11. ER Calculation Spreadsheet for CPA-1

Category 2: Others

12. FINAL REPORT ON EMISSION INVENTORY, BANGLADESH COUNTRY STUDY, ASIA LEAST-COST GREENHOUSE GAS ABATEMENT STRATEGY (ALGAS)
    http://www.moef.gov.bd/html/env_bangladesh/data/Emission_Inventory.pdf
13. Studies on the Production of Gasoline from Heavy oil (furnace oil) by Thermal Cracking, MS Jamal, Mohammad Ismail, M Yunnus Miah, M Naimul Haque, Sujit Kumar Banik, Bangladesh Journal of Scientific and Industrial Research, 44(4), 473-478, 2009
    http://www.banglajol.info/index.php/BJSIR/article/view/4601

14. Determination of Grid Emission Factor (GEF) for Bangladesh, issued by Department of Environment, Government of the People's Republic of Bangladesh, Reference No. DOE/International Convention/2012/21/07, 19/08/2013
15. Bangladesh Textile Factory Survey Report in the Field of Energy & Water Saving"issued by Japan Textile Consultants' Centre (JTCC), September 2012
16. Operation and Monitoring Manual for PoA, issued by Green Project W.S.T® Limited, 24/08,2013
17. Monthly CPA database format, issued by Green Project W.S.T® Limited, 18/08/2013
18. Annual CPA database format, issued by Green Project W.S.T® Limited, 18/08/2013
19. The Environmental Conservation Rule of Bangladesh, Ministry of Environment and Forest, 27 August 1997
20. Gold standard PoA Design Consultation Report, issued by PEAR, 29/12/2013
21. Gold standard PoA LSC Consultation Report, issued by PEAR, 29/12/2013
22. CPA Training Log Format, issued by Green Project W.S.T® Limited, 21/07/2013
23. CPA dyeing machine capacity format, issued by Green Project W.S.T® Limited, 18/08/2013
24. Specifications for Sclavos dyeing machines, Sclavos S.A.
25. Specifications for Cochran Steam Boilers, Cochran Ltd.
26. Application of Membership of Green Project W.S.T Limited and Participation of CDM-PoA, Grameen Knitwear, 03/01/2013
27. Past dyeing book in Grameen Knitwear, Grameen Knitwear, 2012-2013
28. Past dyeing recipes in Grameen Knitwear, Grameen Knitwear, 2012-2013
29. Letter Ref: 03.335.003.05.00.317.1998.90 (letter in response to the letter from GK requesting to provide some information about DEPZ water supply system dated 15/01/2013), Bangladesh Export Processing Zones Authority, 21/01/2013
30. Past dyeing records in Grameen Knitwear, Grameen Knitwear, January - March 2013
31. Daily power generation and power consumption records, United Power Generation and Distribution Company, 2012
32. Table of machine's power, according to size and configuration for dyeing machines, Sclavos S.A.

6. LIST OF INTERVIEWED PERSONS

Green Project W.S.T® Limited (W.S.T)	
Dr. Wolfram Engel	President & CEO
Mr. M. K. Milinda	COO
Mr. Suvro Dev Saha	Assistant Project Supervisor
Mr. Md. Arman Islam	CDM Manager & Head of Technical
Mr. Nazmul Haque	Senior Water Ambassador
Mr. Md. Ahikur Rahman	Water Ambassador
Mr. E. M. Maraf Mahmud	Water Ambassador
PEAR Carbon Offset Initiative, Ltd. (PEAR)	
Dr. Naoki Matsuo,	CEO
Dr. Otkur Ghojash,	Project Manager
Grameen Knitwear Ltd. (GK)	
Mr. Md. Ashraful Hassan	Managing Director
Mr. Mohammed Anwar Hossain	General Manager
Mr. S. M. Mahbubur Rahman	Deputy Manager (Merchandizing)
Mr. Md. Manzurul Haque	Assistant General Manager (Electronics / mechanics)
Mr. Md. Mahbubul Islam Khan	Senior Manager (Dyeing)
D-Water Tech Ltd.	
Mr. M. Kabir (Chapol)	Director
United Power Generation and Distribution Company (UPGDC)	
Mr. Md. Golam Moula	Deputy Plant Manager
Mr. Md. Sai Lughaman	Sub Assistant Engineer
Japan Textile Products Quality and Technology Centre (QTEC) Dhaka Lab	
Mr. Hisao Nishiyama	General Manager
Mr. Tsuyoshi Utsunomiya	Division Manager
University of Dhaka	
Dr. A. N. H. Hamidul Kabir	Associate Professor, Department of Applied Chemistry and Chemical Engineering, Faculty of Engineering and Technology
Clariant (Bangladesh) Ltd.	
Mr. Mohammad Badruddoza	General Secretary
Huntsman (Singapore) Pvt Ltd.	
Mr. Syed Mohammad Ismail	Sales head, Bangladesh
Landmark Group	
Mr. M. Pradeed Saman Kumara	General Manager (Knitting and dyeing)
Mr. Shah Alam Deawn	Deputy General Manager (Dyeing and finishing)
Mr. Md. Munir	General manager (Maintenance)
Bangladesh Garment Manufacturers & Exporters Association (BGEME)	
Mr. Md. Siddiqur Rahman	Second Vice President
Mr. Nur Mohammad Amin Rasel	Senior Deputy Secretary RDTI Cell

SSC PoA VALIDATION CHECKLIST

PEAR Carbon Offset Initiative, Ltd.

Textile Dyeing Process Energy and Water Saving Promotion Programme for Bangladesh Textile and Garment Industries

Project No. JQA-C0238

(1812000443-445)

1 May 2014

Japan Quality Assurance Organization

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Ref. No.	Documents
1	Guidelines for completing the programme design document form for small-scale CDM programmes of activities (Version 03.0)
2	Clean Development Mechanism Validation and Verification Standard (VVS) (Version 06.0)
8	Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities (Version 03.0)
9	Standard for sampling and surveys for CDM project activities and programme of activities (Version 04.1)
10	Guidelines for sampling and surveys for CDM project activities and programme of activities (Version 03.0)

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Remarks:

MoV : Means of Validation

DR : Desk review refers to CARs/CLs/FARs raised through the desk review of the PDD/Version 3.0 and 7.0 prepared on 28/11/2012 and 21/04/2014, respectively).
Regarding the reporting requirements, desk review for the validation report.

SV : Site-visit conducted on 05-10/01/2013.

CAR : Corrective Action Request, in the case that one of the following occurs:

(a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;

(b) The CDM requirements have not been met;

(c) There is a risk that emission reductions cannot be monitored or calculated.

CL : Clarification Request, in the case that information is insufficient or not clear enough to determine whether the applicab CDM requirements have been met.

FAR : Forward Action Request, during validation to highlight issues related to project implementation that require review during the first verification of the project activity.

NA : Not Applicable to the project activity

–– : Pending at the time of the checklist preparation

/#/ : Reference

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Table 1 Comprehensive Checklist for Validation and CARs/CLs requested by the validation team

Section Seq. No.	Ref. No.	Requirement	Comments	Conclusion
E. Global Stakeholder Consultation				
E.01	2	34. The DOE shall acknowledge receipt of and take into account all comments on the PDD of the proposed project activity submitted in accordance with the Project cycle procedure.	Refer to Section 3.1. of the PoA Validation Report. No comments were received by global stakeholder consultation.	NA
E.02	4	20. Parties, stakeholders[2] and UNFCCC accredited observers may submit comments, in English, on the validation requirements for the proposed CDM project activity or PoA to the DOE through the secretariat via a dedicated interface on the UNFCCC CDM website. The submitters of the comments shall provide the name and contact details of the individual or organization on whose behalf the comments are submitted. The DOE shall check the authenticity of this information in case of doubt. [2] For the purpose of this procedure all members of the public are considered to be stakeholders.	Refer to Section 3.1. of the PoA Validation Report. No comments were received by global stakeholder consultation.	NA
E.03	2	35. During the validation of the project activity, has the comments received been taken into account? Does the validation report include details of actions taken to take due account of the comments during the validation process?	Refer to Section 3.1. of the PoA Validation Report. No comments were received by global stakeholder consultation.	NA

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Section Seq. No.	Ref. No.	Requirement	Comments	Con clusion
E.04	2	36. If comments are not sufficiently substantiated or if they indicate that the project activity does not comply with the CDM requirements, has further clarification from the entity providing the comment been requested by the DOE? (However, the DOE is not required to enter into a dialogue with Parties, stakeholders or NGOs that comment on the CDM requirements. If no additional information or substantiation is provided in response to a request for clarification, the DOE shall proceed to assess the comments as originally provided.)	Refer to Section 3.1. of the PoA Validation Report. No comments were received by global stakeholder consultation.	NA
E.05	2	37. The validation report shall include details of actions taken to take due account of the comments during the validation process?	Refer to Section 3.1. of the PoA Validation Report. No comments were received by global stakeholder consultation.	NA
F. Approval				
F.01	2	38. Has the designated national authority (DNA) of each Party indicated as being involved in the proposed CDM project activity in the PDD provided a written letter of approval (LoA)? If yes, are the following clear? - who provided the LoA, the PP or the DNA; - when the LoA has been issued; - what the reference number of LoA is; - what supports the authenticity of LoA (e.g. DNA's Website, etc).	Refer to Section 3.2. of the PoA Validation Report. Bangladesh DNA and Japan DNA are the Parties of the project activity. JQA was provided LoAs from both parties from CME. The LoA from Bangladesh DNA is dated 16/03/2014 with DoE/Int.Con./CDM/2011/06/12. The LoA from Japan DNA is dated 04/04/2014 with Ref. 1404047. Authenticity of these LoAs is supported from the information in each DNA's website.	OK
F.02	2	39. (a) Did each letter confirm that the Party is a Party to the Kyoto Protocol?	Refer to Section 3.2. of the PoA Validation Report. The Bangladesh DNA's LoA states "Bangladesh approved the Kyoto Protocol to the UNFCCC on 22 October 2001, and is a Party to the Kyoto Protocol". The Japan DNA's LoA states "Japan has accepted the Kyoto Protocol on June 4, 2002".	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Conclusion
F.03	2	39. (b) Did each letter confirm that Participation is voluntary?	Refer to Section 3.2. of the PoA Validation Report. The Bangladesh DNA's LoA states "This is a voluntary participation in the proposed CDM project activity". The Japan DNA's LoA states "The Government of Japan authorizes voluntary participation of the above-mentioned entity in the project, in accordance with the Article 12.5(a) and 9 of the Kyoto Protocol to the United Nations Framework Convention on Climate Change".	OK
F.04	2	39. (c) Did each letter confirm that in the case of the host Party, the proposed CDM project activity contributes to the sustainable development of the country?	Refer to Section 3.2. of the PoA Validation Report. The Bangladesh DNA's LoA states "The project contributes to the sustainable development in Bangladesh.	OK
F.05	2	39. (d) Did each letter confirm that it refers to the precise proposed project activity title in the PDD being submitted for registration?	Refer to Section 3.2. of the PoA Validation Report. The Bangladesh DNA's LoA refers to "Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries". The Japan DNA's LoA refers to "Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries".	OK
F.06	2	40. Is/Are the LoA(s) of approval is unconditional with respect to 39 (a) to (d)?	Refer to Section 3.2. of the PoA Validation Report. The Bangladesh DNA's LoA states "The DNA assures you to provide all kind of supports in this regard". The Japan DNA's LoA states "Ministry in charge of providing project support".	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Con clusion
F.07	2	41. Was it confirmed that the LoA(s) has/have been issued by the respective Party's DNA?	Refer to Section 3.2. of the PoA Validation Report. The Bangladesh DNA's LoA was issued by Department of Environment, Ministry of Environment and Forest of the Bangladesh Government. The Japan DNA's LoA was issued by Minister of the Environment of Japan.	OK
F.08	2	42. If in doubt of the authenticity of the LoA, was the authenticity of the LoA verified with the DNA?	Refer to Section 3.2. of the PoA Validation Report. No doubt of the authenticity of the LoA.	OK
F.09	2	43. The DOE shall, for each Party involved: (a) Indicate whether a letter of approval has been received, with clearly referencing the letter itself and any supporting documentation;	Refer to Section 3.2. of the PoA Validation Report and F.01 above.	OK
F.10	2	43. The DOE shall, for each Party involved: (b) Indicate whether the DOE received this letter from the project participants or directly from the DNA;	Refer to Section 3.2. of the PoA Validation Report and F.01 above.	OK
F.11	2	43. The DOE shall, for each Party involved: (c) Indicate the means of validation employed to assess the authenticity if paragraph 42 above applies;	Refer to Section 3.2. of the PoA Validation Report and F.08 above.	OK
F.12	2	43. The DOE shall, for each Party involved: (d) Include a statement as to whether the letters are in accordance with paragraphs 39-42 above.	Refer to Section 3.2. of the PoA Validation Report and F.01-09 above.	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Con clusion
F.13	2	44. If a letter of approval refers to a specific version of the validation report and the DOE therefore is unable to submit this precise version of the validation report, the DOE shall take one of the following options: (a) Insert a statement in the validation report to indicate that the final letter of approval has not been received and that a request for registration will not be submitted until it has been received; or (b) Update the validation report to reflect the receipt of the letter of approval. If this option is selected, the validation report major number shall remain unchanged and the minor number shall be increased. The DOE shall confirm in the validation report that this is the only change that has been made to the version referred to in the letter of approval.	The Bangladesh and Japan DNA's LoAs contain no information such as specification of the project activity, specific version of the validation report	OK
G. Authorization				
G.01	2	45. The DOE shall determine whether each project participant has been authorized by at least one Party involved in a letter of approval.	Refer to Section 3.2. of the PoA Validation Report. Green Project W.S.T® Limited is authorized by the Bangladesh DNA and PEAR Carbon Offset Initiative, Ltd. is authorized by the Japan DNA.	OK
G.02	2	46. The DOE shall confirm that the project participants are listed in tabular form in the PDD and that this information is consistent with the information provided in the section that contains the contact information for project participants.	Refer to Section 3.2. of the PoA Validation Report and Section A.3. and Annex 1 of the PDD.	OK
G.03	2	47. The DOE shall confirm that no entities other than those authorized as project participants are included in these sections of the PDD.	Only the CME, Green Project W.S.T® Limited and the PP, PEAR Carbon Offset Initiative, Ltd., are listed in tabular form in section A.4. of the PoA-DD.	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Con clusion
G.04	2	48. The DOE shall confirm that the approval of participation has been issued from the relevant DNA and if in doubt shall verify with the DNA that the approval of participation is valid for the proposed CDM project participants.	Refer to F.08 above.	OK
G.05	2	49. The validation report shall, for each project participant: (a) Indicate whether the participation has been approved by a Party to the Kyoto Protocol;	Refer to Section 3.2. of the PoA Validation Report.	OK
G.06	2	49. The validation report shall, for each project participant: (b) Describe the means of validation employed to draw this conclusion.	Refer to Section 3.2. of the PoA Validation Report.	OK
H. Contribution to sustainable development				
H.01	2	50. The DOE shall confirm that the DNA has considered whether the proposed CDM project activity assists the host Party in achieving sustainable development.	Refer to F.04 above.	OK
H.02	2	51. The DOE shall determine whether the letter of approval by the DNA of the host Party confirms the contribution of the proposed CDM project activity to the sustainable development of the host Party.	Refer to F.04 above.	OK
H.03	2	52. The DOE shall state whether the host Partys DNA has confirmed the contribution of the project to the sustainable development of the host Party. This may be reported together with the DOEs assessment of the validity of the host Partys approval.	Refer to Section 3.3. of the PoA Validation Report and F.04 above.	OK
I. Modalities and Communication				
1. General				

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Section Seq. No.	Ref. No.	Requirement	Comments	Con clusion
I.1.01	2	53. The DOE shall validate the corporate identity of all project participants and focal points included in the Modalities of Communication (MoC) statement, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories.	Refer to Section 3.3. of the PoA Validation Report The MoC is signed by the CME, Green Project W.S.T® Limited and the PP, PEAR Carbon Offset Initiative, Ltd.	OK
I.1.02	2	54. The DOE shall validate paragraph 53 above through: (a) Directly checking evidence for corporate, personal identity and other relevant documentation;	Refer to Section 3.3. of the PoA Validation Report. JQA validated the MoC by directly checking evidence for corporate and personal identity.	OK
I.1.03	2	54. The DOE shall validate paragraph 53 above through: (b) Notarized documentation; or	Ditto.	NA
I.1.04	2	54. The DOE shall validate paragraph 53 above through: (c) Written confirmation from the project participant or the coordinating/managing entity that submits to it the MoC statement that all corporate and personal details, including specimen signatures, are valid and accurate.	Ditto.	NA
I.1.05	2	55. When the DOE validates identity by applying paragraph 54 (c) above, the DOE shall ensure that the MoC statement is received from a project participant with whom the DOE has a contractual relationship.	Refer to I.1.06 below.	NA
I.1.06	2	55. For CDM PoAs, the DOE shall ensure that the MoC statement is received from the coordinating/managing entity.	Refer to Section 3.3. of the PoA Validation Report. MoC was received from the CME, Green Project W.S.T® Limited.	OK
I.1.07	2	56. When the DOE validates identity by applying paragraph 54 (c) above, the DOE shall ensure that the official who submits the MoC statement to the DOE and the official who signed the written confirmation (if a different person) is/are duly authorized to do so on behalf of the respective project participant or coordinating/managing entity.	Refer to Section 3.3. of the PoA Validation Report. JQA confirms that the official who submits the MoC statement to JQA and the official who signed the written confirmation are duly authorized to do so on behalf of the respective PP/CME.	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Con clusion
I.1.08	2	57. If the DOE is unable to validate the requirements by applying paragraph 54 (a), (b) or (c) above then the DOE may perform further validation activities in order to confirm that the corporate and personal details, employment status and specimen signatures included in the MoC statement are valid and accurate and comply with the requirements of this section.	Refer to Section 3.3. of the PoA Validation Report. JQA is able to validate the requirements by applying paragraph 54 (a).	NA
I.1.09	2	58. The DOE shall confirm in writing that it has performed due diligence on the MoC statement in accordance with the requirements established in this standard.	Refer to Section 3.3. of the PoA Validation Report. JQA performed due diligence on the MoC statement in accordance with VVS.	OK
2. Modalities of communication statement				
I.2.01	2	59. The DOE shall validate that the MoC statement has been correctly completed and duly authorized.	Refer to Section 3.3. of the PoA Validation Report. MoC statement has been correctly completed and duly authorized.	OK
I.2.02	2	60. The DOE shall check that: (a) The latest version of the form Modalities of Communication statement (F-CDM-MOC) has been used;	Refer to Section 3.3. of the PoA Validation Report. The latest version of the form Modalities of Communication statement (F-CDM-MOC) (Version 02.1) has been used	OK
I.2.03	2	60. The DOE shall check that: (b) The information required as per the F-CDM-MOC, including its annex 1, is correctly completed;	Refer to Section 3.3. of the PoA Validation Report. The information required as per the F-CDM-MOC, including its annex 1, is correctly completed.	OK
I.2.04	2	60. The DOE shall check that: (c) The project participants authorized signatories signing the F-CDM-MOC correspond to the project participants authorized signatories included in F-CDM-MOC, annex 1.	Refer to Section 3.3. of the PoA Validation Report. The PP's authorized signatories signing the F-CDM-MOC correspond to the PP's authorized signatories included in F-CDM-MOC, Annex 1.	OK
I.2.05	2	61. The DOE shall confirm in writing that the MoC statement complies with all relevant forms and requirements.	Refer to Section 3.3. of the PoA Validation Report. JQA confirmed that the MoC statement complies with all relevant forms and requirements.	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Con clusion
J. Project design document				
J.01	2	62. The DOE shall determine whether the PDD was completed using the latest version of the PDD form appropriate to the type of project activity.	The PoA-DD was completed using the latest version of F-CDM-SSC-PoA-DD - Programme design document form for small-scale CDM programmes of activities (Version 2.0).	OK
J.02	2	63. The DOE shall provide a statement regarding the compliance of the PDD with relevant forms and guidance.	Refer to Section 3.5. of the PoA Validation Report.	OK

Appendix A

Table 2 Validation Requirements and CARs/CLs/FARs requested by the validation team

Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS VII.		General Validation Requirements				
VVS K.		Description of project activity				
VVS K.01	2	64. The DOE shall determine whether the description of the proposed project activity in the PDD is accurate, complete, and provides an understanding of the proposed CDM project activity.		The following descriptions in Part I, A.6. of the PoA-DD are to be clarified: - The “fabric singering” is a process for fabric and thus it is not clear why it is categorized into yarn optimization. - It is not clearly described whether “yarn optimization” and “dying optimization" are mutually dependent measures which cannot be done alone or completely independent measures. - Dying chart and comparison table for polyesters (disperse dye and cationic dye) are to be added.	CL01	OK
				The following issues in Part II, A.1. of the PoA-DD are to be clarified: - It is not clear why “yarn optimization” is not described here, although it is described in Part I, A.6. of the PoA-DD. - Energy savings by “other than dyeing machine” described in equations in Part II, B.6.1 is to be specified (such as type of machine, process, measure, etc.) and to be described in this section.	CL02	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS K.02	2	65. Unless other means are specified in the methodology, the DOE shall conduct a physical site inspection for the following proposed project activities in existing facilities or utilizing existing equipments: (a) Large-scale projects; (b) Non-bundled small-scale projects with emission reductions exceeding 15,000 tonnes per year; (c) Bundled small-scale projects, each with emission reductions not exceeding 15,000 tonnes per year; in such cases the number of physical site visits may, however, be based on sampling, if the sampling size is justified through statistical analysis.	DR/SV	JQA conducted a physical site inspection on 05-10/01/2013.	OK	OK
VVS K.03	2	66. For other individual proposed small-scale CDM project activities with emission reductions not exceeding 15,000 tonnes per year, the DOE should conduct a physical site visit as appropriate. For proposed CDM project activities for which the DOE does not undertake a physical site inspection this shall be justified. The DOE may apply a sampling approach in accordance with the Standard for sampling and surveys for CDM project activities and programme of activities.	DR/SV	Ditto.	OK	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS K.04	2	67. For all other proposed CDM project activities not referred to in paragraphs 65-66 , the DOE shall undertake the validation of project description by reviewing available designs and feasibility studies and should conduct comparison analysis with equivalent projects, as appropriate.	DR/SV	Ditto.	OK	OK
VVS K.05	2	68. If the proposed CDM project activity involves the alteration of an existing installation or process, the DOE shall ensure that the project description states the differences resulting from the project activity compared to the pre-project situation.	DR/SV	The differences resulting from the project activity compared to the pre-project situation includes: - Yarn optimization such as using compact yarn with low TPI (twist per inch), super combed spun yarn of long staple fiber that avoid bio-polishing. - Switching from hot brand scouring to cold brand scouring in pretreatment process. - Dyeing process optimization according to existing conditions of factories such as promoting direct dyes, noncarcinogenic GOTS (Global Organic Textile Standard) certified Sulphur Dyes, new generation reactive dyes, Vat dyes, etc.	--	OK
VVS K.06	2	69. The **validation report** shall: (a) Describe the process undertaken to validate the accuracy and completeness of the project description; (b) Provide an opinion on the accuracy and completeness of the project description; (c) Provide a justification if it has not conducted a site visit.	DR/SV	Refer to Section 3.6. of the PoA Validation Report.	--	OK
VVS L.		Application of the selected baseline and monitoring methodology				
VVS L.2.		Applicability of the selected baseline and monitoring methodology to the project activity				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.2.01	2	73. The DOE shall validate that the selected baseline and monitoring methodology is applicable to the project activity and that the selected version is valid at the time of submission of the proposed project activity for registration.	DR	The methodology applied to a CPA included in the proposed PoA is AMS-II.D. “Energy efficiency and fuel switching measures for industrial facilities” (Version 12) is valid at the time of submission of the proposed project activity for registration.	--	OK
VVS L.2.02	2	74. The DOE shall determine whether the methodology is correctly quoted and applied by comparing it with the actual text of the applicable version of the methodology.5 [5] A selected approved methodology applies to the project activity if the applicability conditions of the methodology are met.	DR/SV	In Part I, B.3. and Part II, B.2., applicability check with Para 2 of AMS-II.D. is to be added.	CL03	OK
VVS L.2.03	2	75. If the PDD of a proposed project activity is based on a previous version of a methodology and was published for global stakeholder consultation but was not submitted for registration within the grace period, the DOE shall request the project participants to provide a revised PDD in accordance with the Project cycle procedure.	DR/SV	The PoA-DD is based on a previous version of a methodology (AMS-II.D. “Energy efficiency and fuel switching measures for industrial facilities”, Version 12) and was published for global stakeholder consultation. The request for registration of the PoA is submitted within the grace period of Version 12 (up to 04/06/2014).	--	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.2.04	2	76.The DOE shall determine whether the project activity meets each of the applicability conditions of the approved methodology or any tool or other methodology component referred to therein. This shall be done by validating the documentation referred to in the PDD and by verifying that the documentation content is correctly quoted and interpreted in the PDD.	DR/SV	In Part I, B.3. and Part II, B.2., conformity of "yarn optimization" (see Part I, A.2.) and the "energy saving measures by other than dyeing machine" (see Part II, A.1.) with the applicability conditions of AMS-II.D. is not described specifically.	CL04	OK
VVS L.2.05	2	76. If the DOE, based on local and sectoral knowledge, is aware that comparable information is available from credible sources other than that used in the PDD, then the DOE shall cross-check the PDD against other sources to confirm that the project activity meets the applicability conditions of the methodology.	DR/SV	JQA cross-checked the PoA-DD against other sources such as information about dyeing factories in Bangladesh to confirm that the PoA meets the applicability conditions of AMS-II.D. Version 12. The PoA will introduce energy efficiency measures for dyeing process in garment and textile factories with the aggregate energy savings of a single CPA does not exceed 60 GWhth per year.	--	OK
VVS L.2.06	2	77. For each applicability condition listed in the approved methodology selected, the **DOE shall describe** the steps taken to assess the relevant information contained in the PDD against these criteria.	DR/SV	Refer to Section 3.7.1. of the PoA Validation Report.	--	OK
VVS L.2.07	2	77. The **DOE shall provide** a validation opinion regarding the applicability of the selected methodology to the proposed CDM project activity.	DR/SV	Refer to Section 3.7.1. of the PoA Validation Report.	--	OK
VVS L.3.		Deviation from an approved methodology				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.3.01	2	78. If project participants requested a deviation before the publication of the PDD when applying an approved methodology to a proposed project activity, or if a DOE finds at validation that project participants deviated from an approved methodology and the DOE considers that the deviation was due to a project-specific issue implying that a revision of the methodology would not be required to address the issue, it may seek guidance on the acceptability of the deviation from the Board prior to requesting registration of the proposed project activity.6	DR/SV	CME/PPs does not deviate from AMS-II.D. Version 12 and thus not applicable.	--	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.3.02	2	79.The DOE shall submit to the Board an assessment of the case including demonstration that the deviation does not require revision of an approved methodology, and shall include a description of the impact of the deviation on the emission reductions from the project activity.	DR/SV	Ditto.	--	NA
VVS L.3.03	2	80. Alternatively, if the DOE considers that a revision of the methodology would be required to address the project situation then the DOE shall request the project participants to submit a request for revision in accordance with the Project cycle procedure.	DR/SV	Ditto.	--	NA
VVS L.4.		Clarification on the applicability of an approved methodology				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.4.01	2	81. If the DOE cannot make a determination regarding the applicability of the selected methodology to the proposed project activity, then the DOE shall request clarification of the methodology. The DOE shall conduct an assessment to ensure that the request is not submitted with the intention of revising an approved methodology to expand its applicability.	DR	JQA can determine the applicability of AMS-II.D. to the proposed PoA and thus not applicable.	--	NA
VVS L.5.		Project boundary				
VVS L.5.01	2	82.The DOE shall determine whether all main GHG emission sources, the physical delineation of the proposed project activity and other relevant project and baseline emission sources covered in the methodology are included within the project boundary for the purpose of calculating project and baseline emissions for the proposed project activity.	DR/SV	Physical deliniation of CPA under the PoA covers all main GHG emission sources as follows: - The dyeing machines (dyeing process) - The water supply system - The energy sources such as boilers and captive generators at factories. - National grid or isolated grids are also included in the project boundary. Emission sources and gases include all main GHG as follows: - CO2 emissions from electricity consumption of dyeing machines for textile dyeing - CO2 emissions from steam consumption of dyeing machines for textile dyeing - CO2 emissions from electricity consumption for pumping up water that used in dyeing processes for textile dyeing	--	OK
VVS L.5.02	2	83. The DOE shall confirm the project boundary based on documented evidence and shall corroborate it by a site visit where required.	DR/SV	JQA confirms the project boundary based on documented evidence and site visit.	--	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.5.03	2	84. If the methodology allows project participants to choose whether a source or gas is to be included within the project boundary, the DOE shall determine whether the project participants have justified that choice. The DOE shall determine whether the justification provided is reasonable, based on an assessment of supporting documented evidence provided by the project participants and corroborated by observations if required.	DR/SV	The following emission sources and gases are justified as per AMS-II.D. - CO2 emissions from electricity consumption of dyeing machines for textile dyeing - CO2 emissions from steam consumption of dyeing machines for textile dyeing - CO2 emissions from electricity consumption for pumping up water that used in dyeing processes for textile dyeing	--	OK
VVS L.5.04	2	85. For the project activities that have both A/R and non-A/R components, in order to avoid double counting of emission sources, the DOE shall confirm that the emissions associated with the A/R activity will be accounted for and documented by the A/R project activity.	DR/SV	The proposed PoA has no A/R components	NA	NA
VVS L.5.05	2	86. The **DOE shall describe** how the validation of the project boundary has been performed, by detailing the documentation assessed (e.g. a commissioning report) and by describing its observations during any site visit undertaken (i.e. observations of the physical site or equipment used in the process).	DR/SV	Refer to Section 3.7.2. of the PoA Validation Report.	--	OK
VVS L.5.06	2	87.The **DOE shall state** whether the identified boundary and the selected sources and gases are justified for the project activity.	DR/SV	Refer to Section 3.7.2. of the PoA Validation Report.	--	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.5.06	2	87. Should the DOE identify emission sources that will be affected by the implementation of the proposed project activity and which are expected to contribute more than 1% of the overall expected average annual emissions reductions, and are not addressed by the selected approved methodology, the DOE shall request clarification of, revision to, or deviation from the methodology, as appropriate.	DR/SV	JQA confirms on-site that there would be no emission sources that are affected by the implementation of the proposed PoA and which are expected to contribute more than 1% of the overall expected average annual emissions reductions by a CPA in the PoA, and are not addressed by the selected approved methodology.	--	OK
VVS L.6.		Baseline scenario identification and description				
VVS L.6.02	2	88.The DOE shall determine whether the baseline identified for the proposed project activity is the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed project activity.	DR/SV	The following baseline idefined by the CME/PPs is the senario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the PoA: - In the absence of the CDM project activity, the factories would continue to apply the current conventional dyeing practices to consume energy at historical average levels - The current dyeing practices is the use of enzyme wash , hot brand scoring and application of classical reactive dye for celluloses, reactive and disperse dye for CVCs and disperse dye for polyesters	--	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.6.03	2	89. The DOE shall determine whether any procedure contained in the methodology to identify the most reasonable baseline scenario has been correctly applied. If the selected methodology requires the use of tools (such as the Tool for the demonstration and assessment of additionality and the Combined tool to identify the baseline scenario and demonstrate additionality) to establish the baseline scenario, the DOE shall consult the methodology on the application of these tools. In such cases, the specific guidance in the methodology shall supersede the corresponding requirements of the tool.	DR/SV	Regarding the description in Part II, B.4., the following issues are to be clarified: - The CME/PP are requested to explain how they take into consideration the interaction between the measures ("yarn optimization", "dying optimization" and "energy saving measures by other than dyeing machine") when establishing the baseline as per Para 7 of AMS-II.D., since the proposed PoA involving multiple energy efficiency measures. - The CME/PP are requested to describe how to determine "the time at which the dyeing practices would be likely to be replaced by the energy and water saving technologies in the absence of the CDM project activity" with reference to Para 9 of AMS-II.D. - CME/PP are requested to explain how the baseline scenario is established in accordance with Para 10 of AMS-II.D regarding emission coefficients for electricity and fossil fuels.	CL05	OK
VVS L.6.04	2	90. If the methodology requires several alternative scenarios to be considered in the identification of the most plausible baseline scenario, the DOE shall, based on financial expertise and local and sectoral knowledge, determine whether all scenarios that are considered by the project participants and any scenarios that are supplementary to those required by the methodology, are realistic and credible in the context of the proposed project activity and that no alternative scenario has been excluded.	DR	AMS-II.D. does not require seleval alternative scenarios to be considered in the identification of the most plausible baseline scenario.	NA	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.6.05	2	91. The DOE shall determine whether the most plausible baseline scenario identified is reasonable by validating the assumptions, calculations and rationales used in the PDD. It shall determine whether documents and sources referred to in the PDD are correctly quoted and interpreted. The DOE shall cross-check the information provided in the PDD with other verifiable and credible sources, such as local expert opinion, if available.	DR/SV	The following baseline idefined by the CME/PPs is the senario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the PoA: - In the absence of the CDM project activity, the factories would continue to apply the current conventional dyeing practices to consume energy at historical average levels - The current dyeing practices is the use of enzyme wash , hot brand scoring and application of classical reactive dye for celluloses, reactive and disperse dye for CVCs and disperse dye for polyesters	--	OK
VVS L.6.06	2	92. The DOE shall determine whether the PDD provides a description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed project activity.	DR/SV	Regarding project technologies "yarn optimization" and "energy saving measures by other than dyeing machine", description of the technology that would be employed and/or the activities that would take place in the absence of the proposed project activity are not provided.	CL06	OK

Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.6.07	2	93. The DOE shall determine whether, drawing on its knowledge of the sector and/or advice from local experts, that all applicable CDM requirements have been taken into account in the identification of the baseline scenario for the proposed project activity, as well as relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector. Two (2) types of national and/or sectoral policies have to be taken into account: (a) National and/or sectoral policies or regulations that give comparative advantages to more emissions-intensive technologies or fuels over less emissions-intensive technologies or fuels, otherwise known as policies that increase GHG emissions, and are called type E+. For this type of national and/or sectoral policies or regulations, only those that have been implemented before adoption of the Kyoto Protocol by the COP (decision 1/CP.3, 11 December 1997) shall be taken into account when identifying a baseline scenario. If such national and/or sectoral policies were implemented since the adoption of the Kyoto Protocol, the baseline scenario shall refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place;	DR/SV	The CME/PP are requested to take into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector, in the identification of the baseline scenario where applicable.	CL07	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.6.08	2	93. (b) National and/or sectoral policies or regulations that give comparative advantages to less emissions-intensive technologies over more emissions-intensive technologies (e.g. public subsidies to promote the diffusion of renewable energy or to finance energy efficiency programmes), otherwise known as policies that decrease GHG emissions, are called type E-. For this type of national and/or sectoral policies or regulations, those that have been implemented since the adoption by the COP of the CDM M&P (decision 17/CP.7, 11 November 2001) need not be taken into account in identifying a baseline scenario (i.e. the baseline scenario could refer to a hypothetical situation without the national and/or sectoral policies or regulations being in place).	DR/SV	Ditto.	--	OK
VVS L.6.09	2	94. The **DOE shall describe** the steps taken to assess the requirements and provide an opinion as to whether: (a) All the assumptions and data used by the project participants are listed in the PDD, including their references and sources;	DR/SV	Refer to Section 3.7.3. of the PoA Validation Report.	--	OK
VVS L.6.10	2	94. (b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PDD;	DR/SV	Refer to Section 3.7.3. of the PoA Validation Report.	--	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.6.11	2	94. (c) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;	DR/SV	Refer to Section 3.7.3. of the PoA Validation Report.	--	OK
VVS L.6.12	2	94. (d) Relevant national and/or sectoral policies and circumstances are considered and listed in the PDD;	DR/SV	Refer to Section 3.7.3. of the PoA Validation Report.	--	OK
VVS L.6.13	2	94. (e) The approved baseline methodology has been correctly applied to identify the most plausible baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed project activity.	DR/SV	Refer to Section 3.7.3. of the PoA Validation Report.	--	OK
VVS L.6.14	2	95. The **DOE shall describe** other steps taken and sources of information used to crosscheck the information contained in the PDD.	DR/SV	Refer to Section 3.7.3. of the PoA Validation Report.	--	OK
VVS L.7.		Algorithms and/or formulae used to determine emission reductions				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.7.01	2	97. Where the methodology allows for selection between options for equations or parameters, the DOE shall determine whether adequate justification has been provided (based on the choice of the baseline scenario, context of the proposed project activity and other evidence provided) and that the correct equations and parameters have been used, in accordance with the methodology selected7 including applicable tool(s).	DR/SV	Regarding Part II, B.6.1. of the PoA-DD, the equations are to be reviewed taking the following comments into consideration: - In Eq. (2), 〖EC〗_(Dyeing,y)^BL is defined as "Baseline emission from electricity consumption by dyeing processes in year y". However, it includes (Historical average electricity consumption of a targeted machine m in the factory by the project other than dyeing machine in a year y) that is outside of the dying process. This equation is to be revised to avoid confusion. The same kind of revision is also to be made for Eq. (3), (4), (8), (9) and (10). - "Other than dying machine" is to be specified and the equations to calculate the baseline/project emissions in "other than dying machine" are to be revised so as to reflect the possible variation of energy consumption by type of machine, yarn, fabric, load, etc. - The calculation to obtain 〖EF〗_CO2^(PJ,elec) = 0.584, based on Para 10 of AMS-II.D., is to be clearly described in Part II, B.4., B.6.1, Appendix 3 or Appendix 4 of the PoA-DD. - There are two options for 〖EF〗_CO2^(PJ,elec). The CME/PPs shall clearly define under what case each value/equation is to be applied. - Regarding Eq. (3) and (9), number of tanks at ETP is used to describe the number of pumps used at ETP. The CME/PPs are requested to justify why (N-1) always equal to the number of pumps in an ETP of a CPA included in the PoA.	CL08	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
				The baseline emission coefficient including 〖EF〗_CO2^(BL,elec), 〖EF〗_CO2^(BL,steam), 〖EC〗_(fresh,water)^(BL,pumping) and 〖EC〗_(waste,water)^(BL,pumping) are planned to be determined ex-ante by the past three years or at least one-year data. However, according to "Bangladesh Textile Factory Survey Report in the Field of Energy & Water Saving" issued by Japan Textile Consultants' Centre (JTCC) in September 2012, there are plenty rooms for improvement of energy efficiency in power generators and boilers (and possibly pumps) used in textile and garment factories in Bangladesh. Therefore, if energy efficiency improvement activities or replacement with high efficient equipment are conducted for power generators, boilers and pumps after the implementation of the PoA independently from the PoA, 〖EF〗_CO2^(PJ,elec), 〖EF〗_CO2^(PJ,steam), 〖EC〗_(fresh,water)^(PJ,pumping) and 〖EC〗_(waste,water)^(PJ,pumping), which are determined by ex-post monitored values, will become smaller than corresponding baseline parameters to result in higher emission reductions. Furthermore, this also could results in violation of Para 4 of AMS-II.D. (This category is applicable to project activities where the impact of the measures implemented by the project activity can be clearly distinguished from changes in energy use due to other variables not influenced by the project activity). The CME/PP are requested to review the current approach so as to ensure accuracy and conservativeness.	CL09	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
				Para 9 of AMS-II.D. ("In the absence of the CDM project activity, the existing facility(ies) would continue to consume energy (ECBL in GWh/year) at historical average levels (ECHY in GWh/year), until the time at which the industrial or mining and mineral production facility(ies) would be likely to be replaced, modified or retrofitted in the absence of the CDM project activity (DATEBaselineRetrofit). From that point of time onwards, the baseline scenario is assumed to correspond to the project activity, and baseline energy consumption (ECBL) is assumed to equal project energy consumption (ECPJ,y in GWh/year), and no emission reductions are assumed to occur.") is not clearly addressed in Part II, B.6.1 of the PoA-DD.	CL10	OK
				The CME/PP are requested to demonstrate that any CPA does not involve the replacement of equipment. If a CPA involves the replacement of equipment, leakage effect is to be assessed based on Para 15 of AMS-II.D (independent monitoring of scrapping of replaced equipment need to be implemented).	CL11	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.7.02	2	98. The DOE shall verify the justification given in the PDD for the choice of data and parameters used in the equations. If data and parameters will not be monitored throughout the crediting period of the proposed project activity but have already been determined and will remain fixed throughout the crediting period, the DOE shall determine whether all data sources and assumptions are appropriate and calculations are correct as applicable to the proposed project activity, and will result in an accurate or otherwise conservative estimate of the emission reductions.	DR	Regarding Part II, B.6.2. of the PoA-DD, the following confusion of parameters/ abbreviations are to be resolved: - It is not clear why 〖EC〗_(m,y)^BL in Eq. (2), 〖WC〗_(m,y)^BL in Eq. (3), 〖SC〗_(m,y)^BL in Eq. (4) in Part II, B.6.1. are not described in Part II, B.6.2. - Two different definitions (“Density of the fuel for generators” and “Density of the fuel for boilers”) are provided for 〖De〗_gen^fuel in Part II, B.6.2.	CL12	OK
				The values applied for 〖EF〗_CO2^(fuel,gen) quoted from 2006 IPCC are to be corrected to the values at the lower limit of the uncertainty at a 95% confidence interval for conservativeness.	CL13	OK
VVS L.7.03	2	98. The DOE shall verify the justification given in the PDD for the choice of data and parameters used in the equations. If data and parameters will be monitored or estimated on implementation and hence become available only after validation of the project activity, the DOE shall determine whether the estimates provided in the PDD for these data and parameters are reasonable.	DR	The choice of data and parameter applied to monitoring parameters is to be reported in CPA-DD and thus not applicable to the PoA.	NA	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.7.04	2	99. The **DOE shall describe** the steps taken to assess the requirements and provide an opinion as to whether: (a) All assumptions and data used by the project participants are listed in the PDD, including their references and sources;	DR	Refer to Section 3.7.4. of the PoA Validation Report.	--	OK
VVS L.7.05	2	99. (b) All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD;	DR	Refer to Section 3.7.4. of the PoA Validation Report.	--	OK
VVS L.7.06	2	99. (c) All values used in the PDD are considered reasonable in the context of the proposed project activity;	DR	Refer to Section 3.7.4. of the PoA Validation Report.	--	OK
VVS L.7.07	2	99. (d) The baseline methodology and corresponding tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;	DR	Refer to Section 3.7.4. of the PoA Validation Report.	--	OK
VVS L.7.08	2	99. (e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.	DR	Refer to Section 3.7.4. of the PoA Validation Report.	--	OK
VVS L.7.09	2	100.The **DOE shall describe** how it has verified the data and parameters used in the equations, including references to any other data sources used.	DR/SV	Refer to Section 3.7.4. of the PoA Validation Report.	--	OK
VVS L.8.		Additionality of a project activity				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.8.01	2	102. The DOE shall assess and verify the reliability and credibility of all data, rationales, assumptions, justifications and documentation provided by project participants to support the demonstration of additionality. This requires the DOE to critically assess the evidence presented, using local knowledge and sectoral and financial expertise.	DR/SV	Regarding the additionality, the evidence / basis of the following statement in Part I, B.1. of the PoA-DD is to be provided: "As dominant common dyeing practice for cellulose (mainly cotton) in Bangladesh is reactive dyeing with medium quality yarns, the energy and water saving technologies are hardly disseminated without efforts of the CME. Hence, avoidance of anthropogenic GHG emissions would have not occurred in the absence of this PoA; current practices would be used continuously."	CL14	OK
VVS L.8.02	2	103. If required by the applicable approved methodology, the DOE shall consider tools and guidelines provided by the Board to demonstrate the additionality of proposed project activities. The DOE shall also consider specific complementary or alternative requirements included in the methodology for demonstrating the additionality of the proposed project activity.	DR/SV	The CME/PP demonstrate additionality based on the latest version of "Guidelines for demonstrating additionality of microscale project activities".	--	OK
VVS L.8.03	2	104. The **DOE shall describe** all steps taken, and sources of information used to cross-check the information contained in the PDD.	DR/SV	Refer to Section 3.7.5. of the PoA Validation Report.	--	OK
VVS L.8.04	2	104. The **DOE shall describe** how it has determined that the evidence assessed is credible, where appropriate.	DR/SV	Refer to Section 3.7.5. of the PoA Validation Report.	--	OK
VVS L.9.		Assessment of prior consideration of the clean development mechanism				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.9.01	2	105.The DOE shall determine whether CDM benefits were considered necessary in the decision to undertake the project as a proposed project activity if the starting date of the proposed project activity is prior to the start of validation, which is the date of publication of the PDD for global stakeholder consultation.	DR	The start date of the PoA is the date in which the PoA-DD published for global stakeholder consultation. Therefore, prior consideration is not applicable as per Section 8.4.7 of VVS.	NA	NA
VVS L.9.02	2	106. The DOE shall determine whether the start date of the project activity, reported in the PDD, is the earliest date at which either the implementation or construction or real action of a project activity begins.9 [9] See the Glossary of CDM terms for additional information related to the start dates of other types of CDM project activities and PoAs.	DR	Ditto.	NA	NA
VVS L.9.03	2	106. For project activities that require construction, retrofit or other modifications, the date of commissioning cannot be considered the project activity start date.	DR	Ditto.	NA	NA
VVS L.9.04	5	Start date: In the context of a CDM project activity or CPA, the earliest date at which either the implementation or construction or real action of a CDM project activity or CPA begins. In the context of a CDM PoA, the date on which the coordinating/managing entity officially notifies the secretariat and the DNA of their intention to seek the CDM status or the date of publication of the PoA-DD for global stakeholder consultation in accordance with the relevant CDM rules and requirements.	DR	Ditto.	NA	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.9.05	2	106. The DOE shall determine whether it is a project activity with a start date: (a) On or after 2 August 2008; or (b) Before 2 August 2008.	DR	It is the PoA with a start date: (a) On or after 2 August 2008.	OK	OK
VVS L.9.06	2	107. For a project activity with a start date on or after 2 August 2008, for which a PDD has not been published for global stakeholder consultation or a new methodology has not been proposed to the Board before the project activity start date, the DOE shall confirm by referring to the list of prior consideration notifications from the UNFCCC website and communication between the project proponent, the secretariat and the host Party DNA regarding the commencement of a new project activity.10 If such notification has not been provided by the project participants within 180 days of the project activity start date, the DOE shall determine that the CDM was not seriously considered in the decision to implement the project activity. [10] See EB 48, annex 62, Prior consideration of the CDM form.	DR	The start date of the PoA is the date in which the PoA-DD published for global stakeholder consultation.	OK	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.9.07	2	108. For a project activity with a start date before 2 August 2008, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation, the DOE shall assess the project participants prior consideration of the CDM. Specifically, the DOE shall assess whether the project participants: (a) Had an awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project. Evidence to support this could include, inter alia, minutes and/or notes related to the consideration of the decision by the Board of Directors, or equivalent, of the project participants, to undertake the project as a proposed project activity;	DR	The start date of the PoA is after 2 August 2008.	NA	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.9.08	2	108. (b) Demonstrated that real and continuing actions were taken to secure CDM status for the project in parallel with its implementation. Evidence to support this could include one or more of the following: contracts with consultants for CDM/PDD/methodology services, draft versions of PDDs and underlying documents such as letters of authorization, and if available, letter of intent, emission reduction purchase agreements (ERPA) term sheets, ERPAs or other documentation related to the potential sale of the certified emission reductions (CERs) (including correspondence with multilateral financial institutions or carbon funds), evidence of agreements or negotiations with a DOE for validation services, submission of a new methodology or requests for clarification or revision of existing methodologies to the Board, publication in a newspaper, interviews with the DNA, and earlier correspondence on the project with the DNA or the secretariat.	DR	Ditto.	NA	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.9.09	1	109. Assessment of real and continuing actions shall be conducted by the DOE and should focus on real documented evidence as indicated in paragraph 108(b) above, including an assessment by the DOE of the authenticity of the evidence. The DOE shall assess letters, e-mail exchanges and other documented communications submitted by the project participants to substantiate the above information, and these shall be considered as evidence only after the DOE has assessed the reliability and authenticity of such communications, inter alia through cross-checking (e.g. interviews).	DR	Ditto.	NA	NA
VVS L.9.10	2	110. In validating proposed project activities where: (a) There is less than two years of a gap between the documented evidence, the DOE shall conclude that continuing and real actions were taken to secure CDM status for the project activity;	DR	Ditto.	NA	NA
VVS L.9.11	2	110. (b) The gap between documented evidence is greater than two years and less than three years, the DOE may determine that continuing and real actions were taken to secure CDM status for the project activity and shall justify any positive or negative validation opinion based on the context of the evidence and information assessed;	DR	Ditto.	NA	NA
VVS L.9.12	2	110. (c) The gap between documented evidence is greater than three years, the DOE shall conclude that continuing and real actions were not taken to secure CDM status for the project activity.	DR	Ditto.	NA	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.9.13	4	111. If evidence to support the serious prior consideration of the CDM as indicated above is not available, the DOE shall determine that the CDM was not considered in the decision to implement the project activity.	DR	Ditto.	NA	NA
VVS L.9.14	2	112. The **validation report** shall: (a) Describe the validation of the project activity start date provided in the PDD;	DR	Refer to Section 3.7.6. of the PoA Validation Report.	--	OK
VVS L.9.15	2	112. (b) Describe the evidence for prior consideration of the CDM (if necessary) that was assessed and the process of cross-checking the evidence, including the real and continuing action;	DR	Evidence for prior consideration of the CDM is not necessary.	NA	NA
VVS L.9.16	2	112. (c) Provide a validation opinion regarding whether the proposed project activity complies with the applicable requirements related to the prior consideration of the CDM.	DR	Refer to Section 3.7.6. of the PoA Validation Report.	--	OK
VVS L.10.		Identification of alternatives				
VVS L.10.01	2	114. The DOE shall assess the list of alternatives given in the PDD and to determine whether: (a) The list of alternatives includes as one of the options that the project activity is undertaken without being registered as a proposed project activity; (b) The list contains all plausible alternatives that the DOE, on the basis of its local and sectoral knowledge, considers to be viable means of supplying the comparable outputs or services that are to be supplied by the proposed project activity; (c) The alternatives comply with all applicable and enforced legislation.	DR	Additionality of the PoA is demonstrated based on “Guidelines for demonstrating additionality of microscale project activities” (Version 05.0) referred to in “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” (Version 03.0). Therefore, identification of alternatives is not relevant.	NA	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.10.02	2	115. Where the baseline scenario is prescribed in the approved methodology, no further analysis is required.	DR	Ditto.	NA	NA
VVS L.10.08	2	116. The **DOE shall describe** whether it considers the listed alternatives to be credible and complete.	DR	Refer to Section 3.7.7. of the PoA Validation Report.	--	OK
VVS L.11.		Investment analysis				
VVS L.11.31	2	118. The DOE shall apply the latest version of the Guidelines on the assessment of investment analysis as provided by the Board and with other relevant provisions.	DR/SV	Additionality of the PoA is demonstrated based on “Guidelines for demonstrating additionality of microscale project activities” (Version 05.0) referred to in “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” (Version 03.0). Therefore, investment analysis is not relevant.	--	NA

Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.11.32	2	119. The DOE shall determine whether the project activity is not the most economically or financially attractive alternative, or that it is not economically or financially feasible without CDM:11 (a) The proposed project activity would produce no financial or economic benefits other than CDM-related income. The DOE shall determine whether the documented costs associated with the proposed project activity and the alternatives identified demonstrate that there is at least one alternative which is less costly than the proposed project activity; (b) The proposed project activity is less economically or financially attractive than at least one other credible and realistic alternative; (c) The financial returns of the proposed project activity would be insufficient to justify the required investment. [11] It should be noted the latest version of the Guidelines on the assessment of investment analysis, and the requirements of specific methodologies may preclude the use of one of these options in certain scenarios.	DR/SV	Ditto.	--	NA

Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.11.33	2	120. To verify the accuracy of financial calculations carried out for any investment analysis, the DOE shall: (a) Determine the suitability of the financial indicator selected by the project participants and conduct a thorough assessment of all parameters and assumptions used in calculating such financial indicators, and determine the accuracy and suitability of these parameters using available evidence and applying its expertise in relevant accounting practices;	DR/SV	Ditto.	--	NA
VVS L.11.34	2	120. (b) Cross-check the parameters against third-party or publicly available sources, such as invoices or price indices;	DR/SV	Ditto.	--	NA
VVS L.11.35	2	120. (c) Review, as appropriate, feasibility reports, public announcements and annual financial reports related to the proposed project activity and the project participants;	DR/SV	Ditto.	--	NA
VVS L.11.36	2	120. (d) Assess the correctness of computations carried out and documented by the project participants; and	DR/SV	Ditto.	--	NA
VVS L.11.37	2	120. (e) Assess, where applicable, the sensitivity analysis by the project participants to determine under what conditions variations in the result would occur, and the likelihood of these conditions.	DR/SV	Ditto.	--	NA

Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.11.38	2	121. To confirm the suitability of any benchmark applied in the investment analysis, the DOE shall: (a) Determine whether the type of benchmark applied is suitable for the type of financial indicator presented;	DR/SV	Ditto.	--	NA
VVS L.11.39	2	121. (b) Ensure that any risk premiums applied in determining the benchmark reflect the risks associated with the project type or activity;	DR/SV	Ditto.	--	NA
VVS L.11.40	2	121. (c) Determine whether it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark.	DR/SV	Ditto.	--	NA
VVS L.11.41	2	122. Where project participants rely on values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed project activities, the DOE shall determine whether: (a) The FSR is the basis for the decision to proceed with the investment in the project, i.e. that the period of time between the finalization of the FSR and the investment decision is sufficiently short that it is unlikely in the context of the underlying project activity that the input values would have materially changed;	DR/SV	Ditto.	--	NA

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VVS L.11.42	2	122. (b) The values used in the PDD and associated annexes are fully consistent with the FSR, and where inconsistencies occur the DOE shall assess the appropriateness of the values;	DR/SV	Ditto.	--	NA
VVS L.11.43	2	122. (c) The input values from the FSR are valid and applicable at the time of investment decision. The DOE shall confirm this on the basis of its specific local and sectoral expertise and by cross-checking or other appropriate means.	DR/SV	Ditto.	--	NA
VVS L.11.44	2	123. The DOE shall: (a) **Describe** in detail how the parameters used in any financial calculations, including those taken from the FSR, if applicable, have been validated;	DR/SV	Refer to Section 3.7.8. of the PoA Validation Report.	--	OK
VVS L.11.45	2	123. (b) **Describe** how the suitability of any benchmark applied has been assessed;	DR/SV	Refer to Section 3.7.8. of the PoA Validation Report.	--	OK
VVS L.11.46	2	123. (c) **Confirm** whether the underlying assumptions are appropriate and the financial calculations are correct.	DR/SV	Refer to Section 3.7.8. of the PoA Validation Report.	--	OK
VVS L.12.		Barrier analysis				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.12.16	2	125. The DOE shall determine whether issues that have a direct impact14 on the financial returns of the project activity are not considered barriers and shall be assessed by investment analysis. This does not refer to either: (a) Risk related barriers, for example risk of technical failure, that could have negative effects on financial performance; or (b) Barriers related to the unavailability of sources of finance for the project activity.	DR/SV	Additionality of the PoA is demonstrated based on "Guidelines for demonstrating additionality of microscale project activities" (Version 05.0) referred to in "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities" (Version 02.0). Therefore, barrier analysis is not relevant.	--	NA
VVS L.12.17	2	126. The DOE shall apply a two-step process to assessing the barrier analysis performed, as follows: (a) Determine whether the barriers are real: The DOE shall assess the available evidence and/or conduct interviews with relevant ndividuals (including members of industry associations, government officials or local experts if necessary) to determine whether the barriers listed in the PDD exist. The DOE shall determine whether the existence of barriers is substantiated by independent sources of data such as relevant national legislation, surveys of local conditions and national or international statistics. If the existence of a barrier is substantiated only by the opinions of the project participants, the DOE shall not consider this barrier to be adequately substantiated. If the DOE considers, on the basis of its sectoral or local expertise, that a barrier is not real or is not supported by sufficient evidence, it shall raise a CAR to have reference to this barrier removed from the project documentation;	DR/SV	Ditto.	--	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.12.18	2	126. (b) Determine whether the barriers prevent the implementation of the project activity but not the implementation of at least one of the possible alternatives: Since not all barriers present an insurmountable hurdle to a project activity being implemented, the DOE shall apply its local and sectoral expertise to judge whether a barrier or set of barriers would prevent the implementation of the proposed project activity and would not equally prevent implementation of at least one of the possible alternatives, in particular the identified baseline scenario.	DR/SV	Ditto.	--	NA
VVS L.12.19	2	127. The DOE shall: (a) **Provide an assessment** of each barrier listed in the PDD, which describes how it has undertaken validation of the barrier;	DR/SV	Refer to Section 3.7.9. of the PoA Validation Report.	--	OK
VVS L.12.20	2	127. (b) **Provide an overall determination** of the credibility of the barrier analysis performed.	DR/SV	Refer to Section 3.7.9. of the PoA Validation Report.	--	OK
VVS L.13.		Common practice analysis				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.13.12	2	129. The DOE shall use official sources and its local and sectoral expertise to: (a) Assess whether the geographical scope (e.g. the defined region) of the common practice analysis is appropriate for the assessment of common practice related to the project activitys technology or industry type. For certain technologies, the relevant region for assessment will be local and for others it may be transnational/global. If a region other than the entire host country is chosen, the DOE shall assess the explanation of why this region is more appropriate;	DR	Additionality of the PoA is demonstrated based on “Guidelines for demonstrating additionality of microscale project activities” (Version 05.0) referred to in “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” (Version 02.0). Therefore,common practice analysis is not relevant.	NA	NA
VVS L.13.13	2	129. (b) Determine to what extent similar and operational projects (e.g. using similar technology or practice), other than project activities,16 have been undertaken in the defined region; [16] Registered CDM project activities and CDM project activities that have been published on the UNFCCC website for global stakeholder consultation as part of the validation processes.	DR	Ditto.	NA	NA
VVS L.13.14	2	129. (c) Assess, if similar and operational projects, other than project activities, are already widely observed and commonly carried out in the defined region, whether there are essential distinctions between the proposed project activity and the other similar activities.	DR	Ditto.	NA	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.13.15	2	130. The DOE shall: (a) **Describe** how the geographical scope of the common practice analysis has been validated, considering the technology or industry type to which the project activity belongs;	DR	Refer to Section 3.7.10. of the PoA Validation Report.	--	OK
VVS L.13.16	2	130. (b) **Describe** how it has undertaken an assessment of the existence of similar projects;	DR	Refer to Section 3.7.10. of the PoA Validation Report.	--	OK
VVS L.13.17	2	130. (c) **Describe** how it has assessed the essential distinctions between the proposed project activity and any similar projects that are widely observed and commonly carried out;	DR	Refer to Section 3.7.10. of the PoA Validation Report.	--	OK
VVS L.13.18	2	130. (d) **Confirm** whether the proposed project activity is not common practice. 15	DR	Refer to Section 3.7.10. of the PoA Validation Report.	--	OK
VVS L.14.		Monitoring plan				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.14.01	2	132. The DOE shall apply a two-step process to meet the above requirement: (a) To assess compliance of the monitoring plan with the approved methodology and the applicable tool(s), the DOE shall: (i) Identify the list of parameters required by the selected approved methodology including applicable tool(s) by means of document review;	DR	The CME/PP are requested to justify how the monitoring parameters in Part II, B.7.1 of the PoA-DD satisfy AMS-II.D. with respect to; - Para 12 (a): Documenting the specifications of the equipment replaced. - Para15 (for PoA; if applicable): The monitoring should include a check if the number of project activity equipment distributed by the project and the number of scrapped equipment correspond with each other. For this purpose, scrapped equipment should be stored until such correspondence has been checked. The scrapping of replaced equipment should be documented and independently verified.	CL15	OK
VVS L.14.02	2	132. (a) (ii) Confirm that the description of the monitoring plan contains all necessary parameters, that they are described and that the means of monitoring described in the plan complies with the requirements of the methodology including applicable tool(s).	DR/SV	Regarding the means of monitoring described in in Part II, B.7.1 of the PoA-DD, the following issues are to be clarified: - The measurement method for 〖SC〗_(i,j,k,l)^(PJ,Batch) and 〖SC〗_(m,y)^(PJ) includes two different ways, namely, calculation based on the dyeing charts and measurement by a steam meter. Please clarify which method is actually used. - It is not specified what kind of monitoring equipment is used for monitoring of 〖EC〗_(fresh,water)^(PJ,pumping), 〖EC〗_(waste,water)^(PJ,pumping), 〖EG〗_gen^(PJ,fuel) , 〖FC〗_gen^(PJ,fuel), 〖SP〗_steam^(PJ,fuel) and 〖FC〗_steam^(PJ,fuel) and QA/QC procedures (e.g. calibration) applied to them.	CL16	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.14.03	2	132. (b)To assess the implementation of the plan the DOE shall, by means of review of the documented procedures, interviews with relevant personnel, project plans and any physical inspection of the proposed project activity site, assess whether: (i) The monitoring arrangements described in the monitoring plan are feasible within the project design;	DR/SV	The monitoring arrangements described in the monitoring plan are feasible within the project design as follows: - Water flow meter, steam flow meter and energy meter are insalled for monitoring or a process control and energy management system equipped in a dyeing machine are used for monitoring. - CPA Factory people will write down water, steam and electricity data in dyeing registered book. Water ambassador of W.S.T will collect water, steam and electricity data and necessary data from CPA textile factory. Water ambassador will report to team leader regarding CPA update information. The CDM record keeping team will insert information in CPA database format. Monthly and yearly database format will be prepared by CDM record keeping team. The CDM management team will review CPA updated data & sent to DOE. Two types of CPA database format will use for monthly and another yearly emission reduction (baseline & project). W.S.T will act as the overall supervisor and prepare a monitoring report periodically to the DOE.	--	OK
VVS L.14.04	2	132. (b) (ii) The means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the proposed project activity can be reported ex post and verified.	DR/SV	It is not clear how "dye bath water ratio" can be used for cross-check of 〖WC〗_(i,j,k,l)^(PJ,Batch) and 〖WC〗_(m,y)^PJ, which are measured by scales attached to the water tanks, since water consumption by a dyeing batch cannot be determined solely by the "dye bath water ratio".	CL17	OK
VVS L.14.07	2	133. The DOE shall: (a) **State** its opinion on the compliance of the described monitoring plan with the requirements of the methodology including applicable tool(s);	DR/SV	Refer to Section 3.7.11. of the PoA Validation Report.	--	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS L.14.08	2	133. (b) **Describe** the steps undertaken to assess whether the monitoring arrangements described in the monitoring plan are feasible within the project design;	DR/SV	Refer to Section 3.7.11. of the PoA Validation Report.	--	OK
VVS L.14.09	2	133. (c) **State** its opinion on the project participants ability to implement the described monitoring plan.	DR/SV	Refer to Section 3.7.11. of the PoA Validation Report.	--	OK
VVS M.		Environmental impacts				
VVS M.01	2	134. The DOE shall determine whether the project participants conducted an analysis of the environmental impacts of the proposed project activity, including transboundary impacts, and whether those impacts are considered significant by the project participants or the host Party.	DR/SV	The analysis of environmental impact of the PoA was conducted and those impacts is considered to be insignificant. As the PoA focuses on process change or process optimization in the existing textile and garment factories that have environmental clearance certificates. The PoA is seen as no any negative environmental impacts then an additional EIA for PoA is not required.	--	OK
VVS M.02	2	135. The DOE shall also determine whether the project participants conducted an environmental impact assessment, if required to do so by the host Party, in accordance with the host Partys procedures.	DR/SV	The CME/PP are requested to clarify whether the EIA is required to CPAs under the PoA in accordance with the Bangladesh laws and regulations.	CL18	OK
VVS M.03	2	136. The DOE shall assess the above requirements by means of a document review and/or using local official sources and expertise.	DR/SV	JQA reviewed EIA regulation in Bangladesh and interviewed with BGEME and confirmed that the PoA will contribute to ensure future water security in Bangladesh and to ease land subsidence as described in E.2. of the PoA-DD.	--	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS M.04	2	137. The **DOE shall indicate** whether the project participants have undertaken an analysis of environmental impacts and, if required by the host Party, an environmental impact assessment in accordance with procedures as required by the host Party.	DR/SV	Refer to Section 3.8. of the PoA Validation Report.	--	OK
VVS N.		Local stakeholder consultation				
VVS N.01	2	138. The DOE shall determine whether the project participants have completed a local stakeholder consultation process and that due steps were taken to engage stakeholders and solicit comments for the proposed project activity.	DR/SV	The CME/PP have completed a local stakeholder consultation process at Uttara Club (Lotus Hall), Dhaka on 5th of November 2012. Around 50 participants including Mr. Faruque Hassan, Vice President, BGMEA, delegates from Textile and Garment Factory and experts from Machinery Manufacturer were present in the meeting.	--	OK
VVS N.02	2	139. The DOE shall, by means of document review and interviews with local stakeholders as appropriate, determine whether: (a) Comments have been invited from local stakeholders that are relevant for the proposed project activity;	DR/SV	The comments have been invited from BGMEA, delegates from Textile and Garment Factory and experts from Machinery Manufacturer.	--	OK
VVS N.03	2	139. (b) The summary of the comments received as provided in the PDD is complete;	DR/SV	The summary of comments from Mr. Mohammad Roqibul Islam from GIZ, Mr. Zaman from Jamuna Group and Mr. Sohag Miah from NIAGARA TEXTILES LTD are described in the PoA-DD. Through the interview with atendees, it is confirmed that the summary of the comments received as provided in the PoA-DD is complete.	--	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS N.04	2	139. (c) The project participants have taken due account of all comments received and have described this process in the PDD.	DR/SV	All questions and comments are responded to increase stakeholders understanding of the project. Some factories' requirements of conducting audits on their factories for joining the project are accepted. Some stakeholder's requests to complete the sustainable development matrix after the meeting are accepted also.	--	OK
VVS N.05	2	140. The DOE shall: (a) **Describe** the steps taken to assess the adequacy of the local stakeholder consultation;	DR/SV	Refer to Section 3.9. of the PoA Validation Report.	--	OK
VVS N.06	2	140. (b) **Provide an opinion** on the adequacy of the local stakeholder consultation.	DR/SV	Refer to Section 3.9. of the PoA Validation Report.	--	OK
VVS O.		Validation status and outcomes, opinion, and report				
VVS O.1.		Validation status and outcomes				
VVS O.1.01	2	141. For each proposed project activity the DOE shall provide an update of the status of its validation activity, unless the project activity has been submitted for registration 180 days subsequent to the end of the period for the submission of public comments.	DR	JQA will provide an update of the status of its validation activity, unless the project activity has been submitted for registration 180 days subsequent to the end of the period for the submission of public comments.	OK	OK

Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS O.1.02	2	142. This status update shall indicate one of the following conditions: (a) The validation contract has been terminated in which case a reason for this termination shall be provided to the Board and secretariat on a confidential basis; or (b) A negative validation opinion has been issued; or (c) The DOE has raised one or more corrective action requests or clarification requests, to which no response has been received in which case the DOE shall provide a summary of the issues raised and update or reconfirm the status of its validation activities at three (3) month intervals thereafter; or (d) The DOE has finalized a positive validation opinion with the exception of the receipt of a valid letter of approval from one or more Parties involved in which case the DOE shall indicate which Party/Parties involved; or (e) Validation activities are ongoing and no corrective action or clarification requests have yet been sent to the project participants; in which case the DOE shall provide an explanation for the length of time taken and update or reconfirm the status of its validation activities on three (3) month intervals thereafter.	DR	The status update will indicate (a), (b), (c), (d) or (e).	OK	OK
VVS O.2.		Validation opinion				
VVS O.2.01	2	143. The DOE shall include a statement of the likelihood of the project activity achieving the anticipated emission reductions stated in the CDM-PDD.	DR/SV	Refer to Section 4. of the PoA Validation Report.	--	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS O.2.02	2	144. The DOE shall inform the project participants of the validation outcome. Notification to the project participants shall include: (a) A confirmation of validation and date of submission of the validation report to the Board; or (b) An explanation of reasons for non-acceptance if the project activity, as documented, is determined not to fulfil the requirements for validation.	DR/SV	Refer to Section 4. of the PoA Validation Report.	--	OK
VVS O.2.02	2	145. The DOE shall provide either: (a) A positive validation opinion in its validation report that is submitted as a request for registration; or (b) A negative validation opinion in its validation report explaining the reason for its opinion if the DOE determines that the proposed project activity does not fulfil the applicable CDM requirements.	DR/SV	Refer to Section 4. of the PoA Validation Report.	--	OK
VVS O.2.03	2	146. The **DOE shall include the following in its opinion**: (a) A summary of the validation methodology and process used and the validation criteria applied; (b) A description of project components or issues not covered by the validation process; (c) A summary of the validation conclusions; (d) A statement on the validation of the expected emission reductions; (e) A statement as to whether the proposed project activity meets the stated criteria.	DR/SV	Refer to Section 4. of the PoA Validation Report.	--	OK
VVS O.3.		Validation report				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS O.3.01	2	147. The DOE shall include the final validation opinion in the **validation report**. In its validation report, the DOE shall: (a) State its conclusions regarding the proposed project activitys conformity with applicable CDM requirements; (b) Give an overview of the validation activities carried out in order to arrive at the final validation conclusions and opinion; (c) Include the results of the dialogue between the DOE and the project participants, as well as any adjustments made to the project design following stakeholder consultation. It shall reflect the responses to CARs and CLs, and discussions on and revisions to project documentation.	DR/SV	Refer to the PoA Validation Report.	--	OK

Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS O.3.02	2	148. In its validation report, the DOE shall provide the following: (a) A summary of the validation process and its conclusions; (b) All its applied approaches, findings and conclusions, especially on baseline selection, additionality, emission factors and monitoring; (c) Information on the global stakeholder consultation carried out by the DOE prior to submitting the project for validation, including dates and how comments received have been taken into consideration by the DOE; (d) A list of interviewees and documents reviewed; (e) Details of the validation team, technical experts, internal technical reviewers involved, together with their roles in the validation activity and details of who conducted the on-site visit; (f) Information on quality control within the team and in the validation process; (g) Appointment certificates or curricula vitae of the DOEs validation team members, technical experts and internal technical reviewers for the project activity.	DR/SV	Refer to the PoA Validation Report.	--	OK
VVS VIII.		Specific Validation Requirements				
VVS A.		Small-scale project activities				
VVS A.1		Project activity eligibility				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS A.1.01	2	151. For a project activity that is within the small-scale project activity threshold but applies a large-scale approved methodology, the DOE shall determine whether this project activity follows the modalities and procedures for large-scale project activities.	DR	The CPAs to be included in the PoA is within the small-scale project activity threshold and applies a SSC methodology AMS-II.D.	NA	NA
VVS A.1.02	2	152. The DOE shall determine whether: (a) The project activity qualifies within the thresholds of the three possible types of small-scale project activities. It may include more than one component; for example, a type III methane recovery component activity and a type I electricity component activity;19	DR	A CPA in the PoA will be qualified within the thresholds of the Type II small scale project activities since each CPA should claim energy saving not more than 60 GWhth per year for meeting the requirements of guideline of “Demonstrating additionality of micro scale project activities”.	--	OK
VVS A.1.03	2	(b) The project activity conforms to one or more of the approved small-scale methodologies applied in conjunction with the general guidelines to SSC CDM methodologies;20	DR	The PoA conforms to SSC methodology AMS-II.D (Ver.12.0).	--	OK
VVS A.1.04	2	(c) The proposed small-scale project activity is not a debundled component of a large-scale project21 activity.	DR	It will be checked for every CPA through the check of eligibility criterion specified by the PoA: "Each CPA should be confirmed as a single project, which is not a de-bundled component of another large-scale CPA or CDM project activity as per the latest guidance given in CDM EB".	--	OK
VVS A.1.05	2	153. The **DOE shall indicate** whether the project activity meets the eligibility criteria for small-scale project activities.	DR	Refer to Section 3.10.1. of the PoA Validation Report.	--	OK
VVS A.2		Debundling				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS A.2.01	2	154. The DOE shall determine whether the proposed small-scale project activity is not a debundled component of a large-scale project activity in accordance with the Guidelines on assessment of debundling for SSC project activities22.	DR	It will be checked for every CPA through the check of eligibility criterion specified by the PoA: "Each CPA should be confirmed as a single project, which is not a de-bundled component of another large-scale CPA or CDM project activity as per the latest guidance given in CDM EB".	--	OK
VVS A.2.02	2	155. The DOE shall determine the proposed small-scale project activity to be a debundled component of a large-scale project activity if there is a registered small-scale project activity or an application to register another small-scale project activity.	DR	Ditto.	--	OK
VVS A.2.03	2	156.The DOE shall, where appropriate, take into account specific debundling requirements for Type I project activities and small-scale transport project activities.	DR	Specific debundling requirements for Type I project activities and small-scale transport project activities are not relevant to the PoA.	NA	NA
VVS A.2.04	2	157. The **DOE shall report** its conclusion and specific details on how it assessed whether the project activities are not a debundled component of a large scale activity.	DR	Refer to Section 3.10.2. of the PoA Validation Report.	--	OK
VVS A.3		Additionality				
VVS A.3.01	2	159. The DOE shall refer to the specific requirements on demonstration of additionality for small-scale project activities23 and the Non-binding best practice examples to demonstrate additionality for SSC project activities.	DR/SV	The CME/PPs are requested to demonstrate additionality of CPAs to be included in the PoA based on the latest version of "Guidelines on the demonstration of additionality of small-scale project activities" and to specify which barrier(s) prohibit(s) the project activity.	CAR01	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS A.3.02	2	160. In the case of Type I project activities up to 5 MW that employ renewable energy as their primary technology, Type II energy efficiency project activities that aim to achieve energy savings at a scale of no more than 20 GWh per year, and Type III project activities that aim to achieve emissions reductions at a scale of no more than 20 kt CO2e per year, the DOE shall assess the relevant criteria to establish the automatic additionality for these projects.24	DR/SV	Since Type II energy efficiency project activities that aim to achieve energy savings at a scale of no more than 20 GWhe or 60 GWhth per year for microscale project activities are also to be included in the PoA, the CME/PP are requested to demonstrate additionality based on the latest version of "Guidelines for demonstrating additionality of microscale project activities" for such projects.	CAR02	OK
VVS A.3.03	2	161. The DOE **shall describe** all steps taken, and sources of information used to cross-check the information contained in the PDD.	DR/SV	Refer to Section 3.10.3. of the PoA Validation Report.	--	OK
VVS D.		Programme of activities/Component project activities				
VVS D.1		Coordinating/managing entity and participants in a PoA				
VVS D.1.01	2	221. The DOE shall assess the management system described in the PoA design document (CDM-PoA-DD) in accordance with the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities.	DR/SV	The CME is requested to develop and provide the following documents used in its management system as per the PoA-DD: - Database format for CPAs - Monthly and annual status report format used for monitoring by each CPA - W.S.T's internal procedures for technical review of inclusion of CPAs - Training program for CPA implementers - Operation and monitoring manual	CL19	OK
VVS D.2		CPA design document				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS D.2.01	2	222. The DOE shall assess any proposed CPA that a coordinating/managing entity wishes to include in the PoA, to determine whether it complies with the eligibility criteria specified in the CDM-PoA-DD. The means of validation to determine compliance with this requirement will be specific to the PoA.	DR	This is requirements for CPAs and not relevant to PoA.	NA	NA
VVS D.2.02	2	223. The DOE should consider a desk review of the documentation sufficient to determine compliance in certain instances and also consider follow-up interviews and/or site visits necessary for other types of PoA.	DR	This is requirements for CPAs and not relevant to PoA.	NA	NA
VVS D.3		Description of a PoA/CPAs				
VVS D.3.01	2	224. The DOE shall assess the CDM-PoA-DD and the PoA-specific CDM-CPA-DD that is submitted by the coordinating/managing entity and shall confirm the framework developed for the implementation of the PoA, and defining a CPA under the PoA.	DR	The framework for the implementation of the PoA, and the defining a CPA under the PoA, are developed as follows: - The PoA will reduce energy and water consumption in textile dyeing process through optimizing dyeing process. - The technologies and know-hows will be introduced and promoted by W.S.T voluntarily as W.S.T was established with a vision of promoting the water and energy saving technologies in Bangladesh Textile and Garment industry. - W.S.T is responsible for overall supervising and managing the PoA. PEAR is the PoA developer and CER buyer. The PEAR also supports the Green Project W.S.T® on CDM related management.	--	OK
VVS D.4		Application of multiple methodologies				
VVS D.4.01	2	225. The DOE shall assess the application of multiple methodologies in accordance with the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities.	DR	Only one methodology, AMS-II.D.(Ver.12.0) is applied and thus not applicable.	--	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS D.5		Boundary for the PoA in terms of geographical area				
VVS D.5.01	2	226. The DOE shall assess the boundary of the PoA within which all CPAs included in the PoA will be implemented.	DR	The geographical boundary of the PoA is the whole Bangladesh.	OK	OK
VVS D.5.02	2	227. The DOE shall determine whether, in establishing the boundary of the PoA, the project participants have taken into consideration all applicable national and/or sectoral policies and regulations within that chosen boundary.	DR	In establishing the boundary of the PoA, it is not clear how CME/PP have taken into consideration all applicable national and/or sectoral policies and regulations within that chosen boundary.	CL20	OK
VVS D.6		Start date of a CPA				
VVS D.6.01	2	228. The DOE shall confirm that the start date of any CPA is on or after the start date of the PoA. Exceptions apply in the case of A/R CPAs, i.e. the exceptions indicated for A/R project activities under paragraph 128(c) of the Clean Development Mechanism project standard also apply to A/R CPAs. Any A/R project activity that started after 1 January 2000 but has not been registered as a CDM project activity may be included as a CPA in an A/R PoA after 31 December 2005 as long as the first verification of the A/R CPA occurs after the date of inclusion of this CPA, and the A/R CPA can accrue temporary certified emission reductions (tCERs) or long-term certified emission reductions (lCERs) as of the starting date.	DR	Start date of a CPA will be checked at each CPA and thus not relevant to the PoA.	NA	NA
VVS D.7		Prior consideration of the CDM				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS D.7.01	2	229. If the CME, for the purpose of determining the start date of the PoA, has chosen to notify the DNA(s) of the host Party(ies) of the PoA and the secretariat in writing of the intention to seek CDM status of the PoA, the DOE shall assess prior consideration of the CDM for the PoA applying the provisions of paragraph 107 above mutatis mutandis.	DR	The start date of the PoA is the date in which the PoA-DD published for global stakeholder consultation. Therefore, prior consideration is not applicable as per Section 8.5.7 of VVS.	NA	NA
VVS D.8		Demonstration of additionality of the PoA as a whole				
VVS D.8.01	2	230. The DOE shall assess the additionality of a PoA in accordance with the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities.	DR	Additionality of the PoA is demonstrated based on “Guidelines for demonstrating additionality of microscale project activities” referred to in “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.	--	OK
VVS D.8.02	8	7. Additionality shall be demonstrated by establishing that in the absence of CDM PoA, none of the implemented CPAs would occur.	DR	Ditto.	--	OK
VVS D.8.03	8	8. PoAs that consist of one or more microscale projects as CPAs shall include eligibility criteria derived from all the relevant requirements of the “Guidelines for demonstrating additionality of microscale project activities”.	DR	The following eligibility criterion is included: "Each CPA should claim energy saving not more than 60 GWhth per year for meeting the requirements of guideline of “Demonstrating additionality of micro scale project activities."	--	OK
VVS D.8.04	8	9. PoAs that consist of one or more small-scale projects as CPAs shall include eligibility criteria derived from all the relevant requirements of the “Guidelines for demonstrating additionality of small-scale project activities”.	DR	Only microscale projects are included in the PoA and thus not applicable.	--	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS D.8.05	8	10. PoAs that consist of one or more large-scale projects as CPAs shall include eligibility criteria derived from all the relevant requirements contained in the additionality section of the large-scale methodologies applied to the CPAs.	DR	Only microscale projects are included in the PoA and thus not applicable.	--	NA
VVS D.8.06	8	11. Large-scale CPAs (i.e. CPAs that apply one or more large-scale CDM methodologies or combination of large scale and small-scale CDM methodologies), small-scale CPAs (i.e. CPAs that apply only small-scale CDM methodologies) and microscale CPAs (i.e. CPAs comprised of only units that are below the thresholds that define microscale project activities) may be included in the same PoA. The “Guidelines for demonstrating additionality of microscale project activities” may be applied to a large-scale or small-scale CPA if all of the units in the CPA in aggregate are below the microscale thresholds. The “Guidelines on the demonstration of additionality of small-scale project activities” may be used for small-scale CPAs only.	DR	Only microscale CPAs are included in the proposed PoA and "Guidelines for demonstrating additionality of microscale project activities” are applied for demonstration of additionality.	--	OK
VVS D.8.07	8	12. The large-scale PoA design document (PoA-DD) form and the large-scale CPA design document (CPA-DD) form shall be used for PoAs applying both large-scale and small-scale methodologies.	DR	Large scale methodologies are not used by the PoA.	NA	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS D.8.08	8	13. The CME shall demonstrate that compliance with the additionality-related eligibility criteria set in the PoA-DD will ensure that all the relevant additionality-related guidelines, tools or any requirements embedded in the methodologies are met.	DR	Compliance with the additionality-related eligibility criteria set in the PoA design document ("Each CPA should claim energy saving not more than 60 GWhth per year for meeting the requirements of guideline of “Demonstrating additionality of micro scale project activities.") will ensure compliance with “Guidelines for demonstrating additionality of microscale project activities”.	--	OK
VVS D.8.09	8	13. (a) When investment analysis is used for the demonstration of additionality, there are two options to meet the above requirements: (i) One option is to conduct an investment analysis to each CPA. In this case, the coordinating/managing entity shall define the input parameters that will be used in the investment analysis in the PoA-DD, together with a description of how the values for these parameters will be obtained for each CPA. The additionality of each CPA shall then be assessed by using the actual values, applicable to the CPA at the time of inclusion, in the investment analysis conducted for the purpose of demonstrating the additionality of the CPA.		Investment analysis is not used for the demonstration of the additionality.	--	NA

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
		13. (a) When investment analysis is used for the demonstration of additionality, there are two options to meet the above requirements: (ii) Another option is not to conduct an investment analysis to each CPA but to define technical and economic criteria for the inclusion of the CPA in the PoA-DD. In this case, the coordinating/managing entity shall determine, through the application of an investment analysis, a range of values for each input parameter which qualify a CPA for inclusion in the PoA2. At the time of inclusion of a CPA, the coordinating/managing entity shall assess whether the actual values, applicable to the CPA at the time of inclusion, fall within the range that was specified in the PoA-DD. For this option, any requirements with regard to the update of eligibility criteria specified in the applied methodologies shall be followed.3 The procedures for post-registration changes (see section 6.2 of the “Clean development mechanism project cycle procedure”) shall be followed for updating the eligibility criteria when this option is chosen.		Ditto.	--	NA
VVS D.8.10	8	14.For PoAs involving combinations of technologies/measures and/or methodologies, the eligibility criteria relative to each of them shall be proposed to demonstrate additionality. Types of combinations as indicated in paragraph 29 below shall be taken into account.	DR	Only AMS-II.D.(Ver.12.0) is applied to the PoA and the PoA does not involving combinations of technologies/measures and/or methodologies.	--	NA
VVS D.9		Eligibility criteria for inclusion of a CPA in the PoA				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS D.9.01	2	231. The DOE shall assess the eligibility criteria for inclusion of a CPA in the PoA in accordance with the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities.	DR/SV	JQA assesses the eligibility criteria for inclusion of a CPA in the PoA in accordance with the letest version of "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities".	OK	OK
VVS D.9.02	8	15. The CME shall develop eligibility criteria for inclusion of CPAs in the PoA and shall include these criteria in the PoA-DD and demonstrate their usability to assess the inclusion of CPAs in the generic CPA-DD.	DR/SV	The CME has developed eligibility criteria for inclusion of a CPA under the PoA and included these criteria in the PoA-DD, and demonstrated their usability to assess the inclusion of CPAs.	--	OK
VVS D.9.03	8	16.The eligibility criteria shall cover as a minimum the following:4 (a) The geographical boundary of the CPA including any time-induced boundary5 consistent with the geographical boundary set in the PoA;	DR	Regarding the criterion “The name and the address of the factory are defined” described in Part I, B.2. and Part II, B.5 of the PoA-DD (A.2 and 2), it is highly unlikely that there are factories which name and address are not defined. The CME/PP are requested to revise this criterion more specifically so as to satisfy Para 16 (a) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.	CL21	OK
VVS D.9.04	8	(b)Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo);	DR	Regarding the criterion “There is unique identification of the target factory” described in Part I, B.2. and Part II, B.5 of the PoA-DD (B.2 and 4), it is necessary to specify what "unique identification" is, and how the CME/PP determine the unique identification with reference to Para 16 (b) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.	CL22	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS D.9.05	8	(c) The specifications of technology/measure6 including the level7 and type of service, performance specifications including compliance with testing/certifications; 6 Specifications of the technology/measure shall include the type, capacity and other key features of the design of the systems. For example, indicating the kW capacity, size or dimensions, fixed/portable operation, and other key design features that makes the project cook stoves efficient, would be appropriate; however, only indicating that all cook stoves will have an efficiency X% would not be sufficient. 7 The level of service shall be defined in comparison with the baseline system being replaced.		Regarding the criterion “Is it possible to submit specification of technology/measure when the DOE validates or verify?” described as C.1. in Part I, B.2. and Part II, B.5 of the PoA-DD (C.1 and 5), the CME/PP shall describe specific technology/measure eligible for CPAs under the PoA with reference to Para 16 (c) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.	CL23	OK
VVS D.9.06	8	(d) Conditions to check the start date of the CPA through documentary evidence;	DR	Regarding the criterion “The start date of a CPA is not, or will not be, prior to the commencement of validation of the PoA.” described in Part I, B.2. and Part II, B.5 of the PoA-DD (D.1. and 6), the CME/PP shall specify documentary evidence used as the basis of the start date of a CPA with reference to Para 16 (d) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.	CL24	OK
VVS D.9.07	8	(e) Conditions that ensure compliance with applicability and other requirements of single or multiple methodologies applied by CPAs;	DR	The following criterion is included: "Each CPA should meet the applicability and other requirements of AMS- II.D (version 12.0). This will be explained in each CPA as a demonstration of applicable condition."	--	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS D.9.08	8	(f) The conditions that ensure that the CPA meets the requirements pertaining to the demonstration of additionality as specified in section 3.1 above;	DR	The criterion “If the achieved energy saving of a CPA is more than 60 GWhth per year, a barrier due to prevailing practice is applied. The prevailing dyeing practice in Bangladesh Textile and Garment industry is reactive dyes for cellulose; disperse dyes for CVC and polyester” described in Part I, B.2. of the PoA-DD (F.1) and “If the above condition is not satisfied, a barrier due to prevailing practice in Bangladesh Textile and Garment industry that is reactive dyes for cellulose; disperse dyes for CVC and polyester would prevent occurrence of CPAs” described in Part II, B.5 of the PoA-DD (8), shall be unified and revised since these sentences do not give any objective criteria.	CL25	OK
VVS D.9.09	8	(g) The PoA-specific requirements stipulated by the CME including any conditions related to undertaking local stakeholder consultations and environmental impact analysis;8	DR	The criterion “A CPA performs local stakeholder consultation (LSC) before the inclusion of SSC-CPA.”, which is described as in Part I, B.2. and Part II, B.5 of the PoA-DD (G.1 and 10), is contradicting with the description in Part I, F.1 of the PoA-DD that LSC is performed at the PoA level. In addition, the criterion “A CPA does not need to perform the environmental impacts analysis according to the regulation of Bangladesh”, described as G.2. in Part I, B.2. of the PoA-DD and No. 11 in Part II, B.5 of the PoA-DD is to be revised or deleted since it do not give any objective criterion. Refer to Para 16 (g) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.	CL26	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS D.9.10	8	(h) Conditions to provide an affirmation that funding from Annex I Parties, if any, does not result in a diversion of official development assistance;		The criterion “A CPA does not use any fund from Annex I parties”, which is described in Part I, B.2. and Part II, B.5. of the PoA-DD (H.1 and 12), and the criterion “If a CPA uses a fund from Annex I parties then it does not result in a diversion of official development assistance”, which is description in Part I, B.2. and Part II, B.5 of the PoA-DD (H.2. and 13), are mutually exclusive and thus integrated into single eligibility criterion because, for inclusion, a CPA under the PoA need to satisfy all eligibility criteria specified in the PoA.	CL27	OK
VVS D.9.11	8	(i) Where applicable, target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/off-grid) and distribution mechanisms (e.g. direct installation);9		Not applicable. There is no any specific requirement about target group other than Textile and Garment factories in Bangladesh.	--	OK
VVS D.9.12	8	(j) Where applicable, the conditions related to sampling requirements for the PoA in accordance with the “Standard for sampling and surveys for CDM project activities and programme of activities”;	DR	Regarding the criterion “A CPA-DD applies 95/10 (confidence /precision) for any necessary survey according” described in Part I, B.2. and Part II, B.5 of the PoA-DD (as J.1. and 14), the CME/PP are requested to specify the parameters to which sampling will be applied.	CL28	OK
VVS D.9.13	8	(k) Where applicable, the conditions that ensure that every CPA (in aggregate if it comprises of independent sub units) meets the small-scale or microscale threshold10 and remains within those thresholds throughout the crediting period of the CPA;	DR	This requirement is covered by the criterion for (f) above, namely, "Each CPA should claim energy saving of not more than 60 GWhth and emission reduction comparable of that for every year to meet the requirements of guideline of “Demonstrating additionality of micro scale project activities”.	--	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS D.9.14	8	(I) Where applicable, the requirements for the debundling check, in case the CPAs belongs to small-scale or microscale project categories.11		The following criterion is included: "Each CPA should be confirmed as a single project, which is not a de-bundled component of another large-scale CPA or CDM project activity as per the latest guidance given in CDM EB."	--	OK
VVS D.9.15	8	16. Footnote 4 Validating DOE and/or the Board may specify additional criteria depending on the specific characteristics of a PoA.	DR	Regarding the criterion “Is the crediting period of a CPA is within the crediting period of the PoA?” described in Part I, B.2. and Part II, B.5 of the PoA-DD (M.1. and 17), the terminology of "crediting period of PoA" is inappropriate. Refer to the latest version of “Glossary: CDM Terms”.	CL29	OK
VVS D.9.16	8	17. The eligibility criteria shall be verifiable.	DR	The CME/PP are requested to make a thorough review of eligibility criteria because they show a mixture of declarative sentences and interrogative sentences. Furthermore, it is not clear when yes or no each eligibility criterion is satisfied.	CL30	OK
VVS D.9.17	8	18. The validating DOE shall determine whether the eligibility criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.	DR/SV	The finally defined eight eligibility criteria are sufficiently objective and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.	--	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS D.9.18	8	19. The CME shall have the competencies to check the features of potential CPAs and ensure that each CPA meets all requirements and eligibility criteria before inclusion in the registered PoA. The CME shall develop and implement a management system that includes the following made available to the DOE at the time of validation of the PoA: (a) A clear definition of roles and responsibilities of personnel12 involved in the process of inclusion of CPAs, including a review of their competencies;	DR/SV	Textile and garment factories who are interested in the PoA will apply to Green Project W.S.T® for participating the PoA. W.S.T will send water ambassador to the factories to audit the CPA factory and make full report on dyeing machines, utilities and current dyeing practices. In the factories, some trials of the W.S.T's technologies will be conducted and team leader will make reports to CDM management team of W.S.T. The CDM management team will technical review the report and pass to the CEO of W.S.T and PEAR also. Based on the report and confirmation of PEAR, CEO of W.S.T will decide inclusion of CPAs.	--	OK
VVS D.9.19	8	(b) Records of arrangements for training and capacity development for personnel;	DR/SV	Personnel trainings of W.S.T on the CDM related matters including CPA inclusions are organized once in a year with the help of PEAR or other international organizations such as GIZ.	--	OK
VVS D.9.20	8	(c) A procedure for technical review of inclusion of CPAs;	DR/SV	Textile and garment factories who are interested in the PoA will apply to Green Project W.S.T® for participating the PoA. W.S.T will send water ambassador to the factories to audit the CPA factory and make full report on dyeing machines, utilities and current dyeing practices. In the factories, some trials of the W.S.T's technologies will be conducted and team leader will make reports to CDM management team of W.S.T. The CDM management team will technical review the report and pass to the CEO of W.S.T and PEAR also. Based on the report and confirmation of PEAR, CEO of W.S.T will decide inclusion of CPAs.	--	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS D.9.21	8	(d) A procedure to avoid double counting (e.g. to avoid the case of including a new CPA that has already been registered either as a CDM project activity or as a CPA of another PoA);	DR/SV	W.S.T technically reviews at the time of CPA inclusion that any biogas digester system under the CPA does not belong to another CPA under this PoA or another registered CDM project activity or another CDM PoA.	--	OK
VVS D.9.22	8	(e) Records and documentation control process for each CPA under the PoA;	DR/SV	CPA factory will keep record in the dyeing registered book. Water Ambassador of W.S.T will give update to the team leader and CDM record keeping team accordingly, supported by CDM management team. A database for each factory in each CPA includes but not limited to: - Names of factories and their addresses - ID numbers of the CPAs - Starting dates of CPAs - Number of dyeing machines and their capacity in each factory - Batch wise baseline electricity consumption for targeted dyeing machines - Batch wise baseline steam consumption for targeted dyeing machines - Batch wise baseline water consumption for targeted dyeing machines - Number of batches for machines for different dyeing process in the project - Batch wise project electricity consumption for targeted machines - Batch wise project steam consumption for targeted dyeing machines - Batch wise project water consumption for targeted dyeing machines	--	OK

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VVS D.9.23	8	(f) Measures for continuous improvements of the PoA management system13;	DR/SV	Review each of CPA, the PoA as a whole annually and assess the performance PoA management system with feedbacks from implementers and other factories through audits. If necessary, revisions are to be done to the management system.	--	OK
VVS D.9.24	8	(g) Any other relevant elements.	DR/SV	There are no other relevant elements.	--	NA
VVS D.9.25	8	20. The DOE shall assess the elements of the management system referred to in paragraph 17 above as part of the validation of the PoA or as part of the validation of a CPA inclusion.	DR/SV	JQA assessed the elements of the management system referred to in paragraph 19 as part of the validation of the PoA. Refer to VVS D.9.18 - D.9.24 above.	--	OK
VVS D.9.26	8	21. CPAs may be included in the PoA on the basis that the DOE has confirmed the eligibility of the CPAs where applicable undertaking sample-based checks in accordance with the guidelines/standard approved by the Board.	DR	Inclusion of the CPA is not relevent at this stage.	NA	NA
VVS D.9.27	8	22. For PoAs that include combinations of technologies/measures and/or methodologies, distinct eligibility criteria shall be developed per combination as specified in paragraph 29 below.	DR	The PoA does not include combinations of technologies/measures and/or methodologies.	--	NA
VVS D.10		Crediting period of a PoA/CPA				
VVS D.10.01	2	232. The DOE shall determine whether the length of a PoA complies with the provisions set out in the CDM project standard, i.e. that it does not exceed 60 years for an A/R PoA and 28 years for any other PoA.	DR	The duration of the PoA is 28 years 0 month	OK	OK
VVS D.11		Monitoring plan for a PoA/CPA				

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VVS D.11.01	2	233. The DOE shall determine whether the monitoring plan for a CPA is in accordance with the approved monitoring methodology, including applicable tool(s).	DR/SV	As described in VVS L.14., monitoring plan for a CPA is in accordance with AMS-II.D (Ver.12.0).	--	OK
VVS D.12		Environmental analysis of a PoA				
VVS D.12.01	2	234. The DOE shall determine whether an analysis of the environmental impacts of the PoA was undertaken as per the requirements of the CDM modalities and procedures.	DR/SV	As described in VVS M., an analysis of the environmental impacts of the PoA is undertaken as per the requirements of the CDM modalities and procedures.	--	OK
VVS D.12.02	2	235. If the analysis was not undertaken for the PoA but conducted at the CPA level, the DOE shall determine whether the analysis of the environmental impacts was conducted as described in the CDM-PoA-DD and the CDM-CPA-DD.	DR	The envronmental analysis is undertaken at the PoA level.	--	NA
VVS D.13		Local stakeholder consultation				
VVS D.13.01	2	236. The DOE shall determine whether the local stakeholder consultation process was carried out for the whole PoA or at the CPA level. If comments by local stakeholders were invited with regard to the whole PoA, the DOE shall determine how these comments were invited; whether the summary of the comments received is complete and how due account was taken of all comments received.	DR/SV	The local stakeholder consultation process was carried out for the whole PoA. Refer to VVS N. about the process of LSC meeting.	--	OK

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
VVS D.13.02	2	237. If the local stakeholder consultation is conducted at the CPA level, the DOE shall determine whether it is in accordance with the level of consultation specified by the coordinating/managing entity and whether the local stakeholder comments were taken into account and described in the CDM-PoA-DD and the CDM-CPA-DD.	DR/SV	The local stakeholder consultation is undertaken at the PoA level.	--	NA
VVS D.14		Determination of occurrences of debundling under a PoA[28]				
VVS D.14.01	2	238. The DOE shall ascertain that the proposed small-scale CPA of a PoA is not a debundled component of a large-scale project activity in accordance with the Guidelines on assessment of debundling for SSC project activities. 28 If each of the independent subsystems/measures (e.g. biogas digester, solar home system) included in the CPA of a PoA is no larger than 1% of the small-scale thresholds defined by the methodology applied, i.e. 150 kW installed capacity or 0.6 GWh annual energy savings or 0.6 ktCO2e annual emission reductions, then that CPA of PoA is exempted from the de-bundling check, i.e. is considered as not being a debundled component of a large-scale activity.	DR	As described in VVS A.2., debundling will be checked for every CPA through the check of eligibility criterion specified by the PoA: "Each CPA should be confirmed as a single project, which is not a de-bundled component of another large-scale CPA or CDM project activity as per the latest guidance given in CDM EB".	--	OK
VVS D.15		Inclusion or renewal of a crediting period of a CPA under a registered PoA				
VVS D.15.01	2	239. The DOE shall assess the CPA and the specific CDM-CPA-DD against the latest version of the PoA to determine whether the CPA meets the requirements of the PoA.	DR	Inclusion of the CPA is not relevent at this stage.	NA	NA
SSS		Standard for sampling and surveys for CDM project activities and programme of activities				
SSS VI.		Validation and verification of sampling plans of project activities and PoAs				

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Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
SSS VI.01	9	21. The proposed sampling plans shall be validated by DOEs20 to determine whether they will provide parameter value estimates in an unbiased and reliable manner including determining: (a) Whether the proposed sample size and sampling method is adequate to achieve the minimum confidence/precision requirements. DOEs shall be able to reproduce the sample size calculation in order to validate the proposed sample size; 20 Recommended evaluation criteria are included in "Guidelines for sampling and surveys for CDM project activities and programme of activities".	DR	Sampling is not applied to the monitoring of CPAs in the PoA.	--	NA
SSS VI.02	9	(b) Whether the proposed sampling plan will ensure that samples are randomly selected and are representative of the population.	DR	Ditto.	--	NA

Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
SSS VI.03	10	8. Recommended evaluation criteria for DOE validation 41. The following questions and evaluation criteria serve as examples and should be utilized by DOEs to validate the proposed sampling plans: (a) Does the sampling plan present a reasonable approach for obtaining unbiased, reliable estimates of the variables? (i) In terms of assessing reliability, are the elements of Objectives and Reliability Requirements complete? Do the requirements specified agree with those stated in the appropriate standards? If not, is there a reason why they are not met?	DR	Ditto.	--	NA
SSS VI.04	10	(ii) From all the different elements of the Design, is there any reason to suspect that the results from the activity will be biased? For instance, is the population under consideration only urban households? What about rural households? Might this cause a bias when the data are extrapolated to emission reductions?	DR	Ditto.	--	NA

Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
SSS VI.05	10	(b) Is the population clearly defined, and how well does the proposed approach to developing the sampling frame represent that population? (i) The population should be clear from the Target Population description. Whether or not the sampling frame is possible or appropriate will depend on the detail and the particular situation, for example if a map is going to be used, a question would be whether a map already exists, and how reliable it is. If a map does not exist, then who is going to create it?	DR	Ditto.	--	NA
SSS VI.06	10	(c) Is the proposed sampling approach clear? (i) Is it clear which sampling method is being proposed? For example, is it simple random sampling, or some other method of sampling?	DR	Ditto.	--	NA
SSS VI.07	10	(ii) Does the method agree with the description of the population? Are there clusters or strata, and if so does it state what they are? For example, are they buildings, villages, etc.?	DR	Ditto.	--	NA
SSS VI.08	10	(d) Is the proposed sample size adequate to achieve the minimum confidence/precision requirements? Is the ex ante estimate of the population variance needed for the calculation of the sample size adequately justified? (i) All of the information set out in the sampling plans should help answer this question. If not all information is provided then the question cannot be answered;	DR	Ditto.	--	NA

Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
SSS VI.09	10	(ii) Is the target value for the population parameter reasonably anticipated?	DR	Ditto.	--	NA
SSS VI.10	10	(iii) Does the estimate of variability seem reasonable?	DR	Ditto.	--	NA
SSS VI.11	10	(e) Is the sample representative? (i) Is it clear how the sample is to be selected? For example, is it to be selected randomly?	DR	Ditto.	--	NA
SSS VI.12	10	(ii) Does the Plan indicate that the sampling frame will be kept (e.g. in hard copy or a computer file of screen shot copy), and that random numbers will be generated and these random numbers will then be used to select the sample?	DR	Ditto.	--	NA
SSS VI.13	10	(f) Is the data collection/measurement method likely to provide reliable data given the nature of the parameters of interest and project, or is it subject to measurement errors? (i) Are the methods of data collection clear and unambiguous? Are there questions which could be subject to respondent error due to sensitivity (e.g. “How much money do you spend on heating?”), lack of recall (e.g. “How many times did you buy fuel last year?”), and the like?	DR	Ditto.	--	NA
SSS VI.14	10	(ii) Are there questions that could be subject to measurement error? For example, is a particular measurement method known to under-record key data, such as the weight of bricks?	DR	Ditto.	--	NA

Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
SSS VI.15	10	(g) Are the procedures for the data measurements well defined and do they adequately provide for minimizing non-sampling errors? (i) Is the quality control and assurance strategy adequate?	DR	Ditto.	--	NA
SSS VI.16	10	(ii) Are there mechanisms7 for avoiding bias in the answer?	DR	Ditto.	--	NA
SSS VI.17	10	(h) Does the frame contain the information necessary to implement the sampling approach? (i) Are the proposed skill sets, qualifications and experience of the personnel to be engaged to conduct sampling adequate?	DR	Ditto.	--	NA
SSS VI.18	9	23. As one means of validation/verification, a DOE may apply a sampling approach when the project proponents have not applied a sampling approach, provided that samples are randomly selected and are representative of the population.	DR	Ditto.	--	NA

Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
SSS VI.19	10	24. When a sampling approach is applied by the project proponents, the DOE may use acceptance sampling as described in below steps (paragraphs 25-28 below) as part of validation22/verification activities to meet the requirements of paragraph 21 and 22 above: (a) Take a random sample of the PPs sample records; (b) Check – using own professional judgment – the acceptability (or otherwise) of the data for each record in the PPs sample records, and then; (c) Based on the number of records where there is agreement, determine if the PPs sample records meet the requirements.	DR	Ditto.	--	NA
SSS VI.20	10	25. In order to determine the size of the sample for field/onsite check, the DOE should specify in advance, using own professional judgment: (a) Acceptable quality level or the Level of Assurance, i.e. the proportion of discrepancies between the PP sample records and the DOE sample records (i.e. DOE field/onsite inspection results) that are acceptable, e.g. 1%; (b) The proportion of discrepancies between the PP sample record and DOE sample records that are unacceptable, e.g. 20%.	DR	Ditto.	--	NA

Section Seq. No.	Ref. No.	Requirement	MoV	Comments	Draft Conc.	Final Conc.
SSS VI.21	10	26. The maximum errors associated with the determination indicated in paragraph 25 should remain at levels indicated below: (a) A 5% chance that the DOE will wrongly reject the PPs records (i.e. reject a set of records of acceptable quality);22 (b) A 5% chance that the DOE will wrongly accept the PPs records (i.e. accept a set of records which is unacceptable).23	DR	Ditto.	--	NA
SSS VI.22	10	27. Using provisions under paragraphs 25 to 26 the DOE should determine: (a) n: the size of the sample;25 (b) c: the acceptance number. 25 A DOE shall determine a sample size for each parameter. If there are multiple parameters, the DOE should take the largest sample size from the different parameters, for example if the sample size for parameter-1 is 50 an	DR	Ditto.	--	NA

TABLE 3: Requirements for checking the completeness of CDM-SSC-PoA-DD and comments

Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
A.0Part I		**Programme of activities (PoA)**			
A		General description of PoA			
A.1		Title of the PoA			
A.1.1	1	(a) The title of the proposed PoA	Energy and Water Saving Promotion Programme for Textile Dyeing Process of Bangladesh Textile and Garment Industries	OK	OK
A.1.2	1	(b) The current version number of the PoA-DD	Version: 7.0	OK	OK
A.1.3	1	(c) The date the PoA-DD was completed (DD/MM/YYYY)	21/04/2014	OK	OK
A.2		Purpose and general description of the PoA			
A.2.1	1	(a) Policy/measure or stated goal that the PoA seeks to promote	The purpose of the PoA promotes energy and water saving through optimizing the process from yarn to fabric on textile dyeing process that is the most water and energy consuming process in textile and garment factories.	OK	OK
A.2.2	1	(b) Framework for the implementation of the proposed PoA	-The technologies and know-hows will be introduced and promoted by Green Project W.S.T voluntarily as W.S.T was established with a vision of promoting the water and energy saving technologies in Bangladesh Textile and Garment industry. - W.S.T is CME of the PoA and responsible for overall supervising and managing the PoA. PEAR is the PoA developer and CER buyer. The PEAR also supports W.S.T on CDM related management.	OK	OK
A.2.3	1	Include a confirmation that the PoA is a voluntary action by the CME.	The PoA is a voluntary action promoted by W.S.T.	OK	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
A.2.4	1	Include a brief description of how the proposed PoA contributes to sustainable development (not more than one page).	The PoA also aims to contribute to environment and resources conservation significantly through energy, water saving and CO2 emission reductions.	OK	OK
A.3		CMEs and participants of PoA			
A.3.1	1	(a) Identity of the CME of the proposed PoA, as the entity which communicates with the Board	W.S.T is the CME of the PoA.	OK	OK
A.3.2	1	(b) Project participants to the PoA (project participants may or may not be involved in one of the component project activities (CPAs) related to the PoA)	In Part I, A.3. of the PoA-DD, it is described that: "Textile and Garment factories in Bangladesh are ...participants of the PoA." Regarding this description, the CME/PP are requested to clarify whether the textile and garment factories are project participants of the PoA, which is necessary to be authorized by the DNA of a Party involved.	CL31	OK
A.4		Party(ies)			
A.4.1.1	1	List in the table below Party(ies) and CMEs involved in the proposed PoA and provide contact information in appendix 1 below.	A single shortened form for "Green Project Water Saving Technology" (either "W.S.T" or "Green Project W.S.T") is to be used throughout the PoA-DD to avoid confusion.	CL32	OK
A.5		Physical/ Geographical boundary of the PoA			
A.5.1	1	Provide details of the defined boundary of the proposed PoA in terms of a geographical area (e.g. municipality, region within a country, country or several countries) within which all CPAs to be included in the PoA will be implemented.	The geographical boundary of the PoA is the whole Bangladesh.	OK	OK
A.6		Technologies/measures			

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
A.6.1	1	Describe the technologies and/or measures to be employed and/or implemented by the CPAs in the PoA.	Technology/measure implemented by the CPAs in the PoA are as follows: - Yarn optimization such as using compact yarn with low TPI (twist per inch), super combed spun yarn of long staple fiber that avoid bio-polishing. - Switching from hot brand scouring to cold brand scouring in pretreatment process. - Dyeing process optimization according to existing conditions of factories such as promoting direct dyes, noncarcinogenic GOTS (Global Organic Textile Standard) certified Sulphur Dyes, new generation reactive dyes, Vat dyes, etc.	--	OK
A.6.2	1	For the description of above, where relevant, consider applicable provisions for application of selected baseline and monitoring methodology for small-scale project activities in the Project standard.	Type II: Energy efficiency improvement project activities that reduce energy consumption, on the demand side, with a maximum output of 60 GWh per year (or an appropriate equivalent) in any year of the crediting period is applicable for CPAs under the PoA. Specifically, the AMS-II.D (Energy efficiency and fuel switching measures for industrial facilities, version 12) will be applied for CPAs under the PoA for baseline and monitoring.	--	OK
A.6.3	1	Do not provide information that is not essential to understanding the purpose of the PoA and how it reduces GHG emissions.	Information that is not essential to understanding the purpose of the PoA and how it reduces GHG emissions is not provided.	--	OK
A.6.4	1	Information related to equipment, systems and measures that are auxiliary to the main scope of the CPAs in the PoA and do not affect directly or indirectly GHG emissions and/or mass and energy balances of the processes related to the CPAs in the PoA should not be included.	Information related to equipment, systems and measures that are auxiliary to the main scope of the CPAs in the PoA and do not affect directly or indirectly GHG emissions and/or mass and energy balances of the processes related to the CPAs in the PoA is not included.	--	OK
A.7		Public funding of PoA			

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
A.7.1	1	Indicate whether the PoA receives public funding from Parties included in Annex I.	The PoA does not depend on any public funding. All of the CPAs will be implemented by private companies. In case any CPA under the PoA avails of any public funding, it will be required to provide in its CPA-DD that no official development assistance is diverted to that public funding.	OK	OK
A.7.2	1	If so: (a) Provide information on Parties providing public funding;	Not applicable.	NA	NA
A.7.3	1	If so: (b) Attach in Appendix 2: the affirmation obtained from such Parties in accordance with applicable provisions related to official development assistance in the Project standard.	Not applicable.	NA	NA
B		Demonstration of additionality and development of eligibility criteria			
B.1		Demonstration of additionality for PoA			
B.1.1	1	Describe how in the absence of CDM, none of the implemented CPAs would occur.	- The demonstration of additionality of the PoA will be provided as per “Guidelines for demonstrating additionality of microscale project activities" (Version 05.0) as only microscale CPAs are to be included in the PoA. - According to paragraph 9 of the “Guideline”, as Bangladesh is one of the LDC countries, any CPA that achieves energy saving not more than 60 GWhthermal per year is seen to be additional.	--	OK
B.2		Eligibility criteria for inclusion of a CPA in the PoA			
B.2.1	1	Describe the eligibility criteria in accordance with the applicable provisions in the PoA standard.	Total of eight eligibility criteria in accordance with the applicable provisions in the PoA standard are described.	--	OK
B.3.		Application of methodologies			
B.3.1	1	Describe the technology/measures and indicate the methodology chosen.	In Part I, B.3.1 of the PoA-DD, the full sentence of Para 1 of AMS-II.D is to be described.	CL33	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
B.3.2	1	In cases where multiple technologies/measures or multiple methodologies are being applied, list all the combinations of technologies/measures and methodologies that will be used in the PoA.	Multiple technologies/measures or multiple methodologies are not applied.	--	NA
B.3.3	1	If applicable, provide a description of the sampling plan and demonstrate how it meets applicable provisions in the "Standard for sampling and surveys for CDM project activities and programme of activities".	Sampling is not applicable to monitoring of a CPA in the PoA.	--	NA
C		Management system			
C.1	1	Describe the management system in accordance with applicable provisions in the PoA standard.	The following information is provided: (1) Generic description of the operation and management system (2) A record keeping system for each CPA under the PoA (3) A system/procedure to avoid double accounting e.g., to avoid the case of including a new CPA that has been already registered either as a CDM project activity or as a CPA of another PoA (4) The SSC-CPA included in the PoA is not a de-bundled component of another CPA or CDM project activity (5) The provisions to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA	--	OK
D		Duration of PoA			
D.1		Start date of the PoA			
D.1.1	1	Describe how the start date was determined.	The start date of the PoA is the date in which the PoA-DD published for global stakeholder consultation, 01 December 2012.	OK	OK
D.2		Length of the the PoA			
D.2.1	1	State the length of the proposed PoA in years.	28 years 0 month	OK	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
E		Environmental impacts			
E.1		Level at which environmental analysis is undertaken			
E.1.1	1	Indicate whether the analysis of environmental impacts is performed at the PoA and/or the CPA level, and justify the choice of level at which the analysis is undertaken.	The analysis of environmental impacts is done at the PoA level.	OK	OK
E.2		Analysis of the environmental impacts			
E.2.1	1	If applicable, provide a summary of analysis of the environmental impacts and reference to all related documentation in accordance with applicable provisions related to environmental impacts for PoAs in the Project standard.	The impact of the PoA on the environment in the whole process is believed to be positive, which is manifested in the following aspects: (1) The project will contribute to ensure future water security in Bangladesh. (2) The project will contribute to ease land subsidence having occurred.	--	OK
F		Local stakeholder comments			
F.1		Solicitation of comments from local stakeholders			
F.1.1	1	Indicate whether the local stakeholder consultation process is performed at the PoA and/or the CPA level, and justify the choice of level at which the local stakeholder consultation is undertaken.	The local stakeholder consultation process is done at the PoA level.	--	OK
F.1.2	1	Describe the process by which comments from local stakeholders were invited and compiled.	A PoA level Local Stakeholder Consultation Meeting was held at Uttara Club (Lotus Hall), Dhaka on 5th of November 2012 for having comments and opinions from local stakeholder from various sectors.	OK	OK
F.2.		Summary of comments received			
F.2.1	1	Identify stakeholders that have made comments and provide a summary of these comments.	Stakeholders that have made comments and a summary of these comments are provided in tabuler form.	OK	OK
F.3.		Report on consideration of comments received			

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
F.3.1	1	Provide information demonstrating that all comments received have been considered.	All questions and comments are responded to increase stakeholders understanding of the project. Some factories' requirements of conducting audits on their factories for joining the project are accepted.	--	OK
G		Approval and authorization			
G.1	1	Indicate whether the letter(s) of approval from Party(ies) which wishes to be involved in the PoA, is available at the time of submitting the PoA-DD to the validating DOE.	The Letter of Approval from both host country (Bangladesh) and Japan is available at the time of submitting the PoA-DD to the validating DOE.	OK	OK
G.2	1	If so, provide along with the PoA-DD the letter(s) of approval of the: (a) Party(ies) involved in the proposed PoA; (b) CME letters of authorization of its coordination of the PoA from each Party.	Not applicable.	NA	OK
Part II		**Generic component project activity (CPA)**			
Part II.1	1	Use this section to demonstrate the application of the PoA framework to implement generic CPAs and to demonstrate that each type of CPA meets the requirements.	This section is used to demonstrate the application of the PoA framework to implement generic CPAs and to demonstrate that each type of CPA meets the requirements.	--	OK
Part II.2	1	Where multiple technologies/measures and/or multiple methodologies are being applied, the demonstration of the application of the PoA framework to implement generic CPAs must be done for each of the combinations of technologies/measures and/or methodologies. Therefore, repeat all of Part II of this guideline for each generic CPA-DD such that one completed Part II represents one generic CPA-DD, and collate all the generic CPA-DDs, not mixing the sections thereof (cross-referencing to avoid repetition of information is permissible).	Multiple technologies/measures and multiple methodologies are not applied.	--	NA

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
A		General description of a generic CPA			
A.1		Purpose and general description of generic CPAs			
A.1.1	1	Provide a description of each generic CPA within the PoA.	The proposed small-scale CPA would consist of introducing energy and water saving technologies toward dyeing process of Textile and Garment factories.	--	OK
B		Application of a baseline and monitoring methodology			
B.1		Reference of the approved baseline and monitoring methodology(ies) selected			
B.1.1	1	Indicate exact reference (number, title, version) of: (a) The selected methodology (e.g. AMS-I.A. “Electricity generation by the user” (Version 14.0)) or multiple methodologies (see “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”);	AMS-II.D. Energy efficiency and fuel switching measures for industrial facilities, Version 12	OK	OK
B.1.2	1	Indicate exact reference (number, title, version) of: (b) Any tools and other methodologies to which the selected methodology refers (e.g. “Tool to calculate the emission factor for an electricity system” (Version 02.2.1)).	AMS-I.D. Grid connected renewable electricity generation, Version 17	--	OK
B.1.3	1	Refer to the UNFCCC CDM website for the exact reference of approved baseline and monitoring methodologies and tools.	The exact reference of AMS-II.D(Ver.12.0). is provided.	OK	OK
B.1.4	1	Note: Confirm that the selected methodology(ies) is(are) approved for application to CPAs under PoAs by the Board.	AMS-II.D(Ver.12.0). is approved for application to CPAs under PoAs.	OK	OK
B.2		Application of methodology(ies)			

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
B.2.1	1	Justify the choice of the selected methodology(ies) by showing that each generic CPA meets each applicability condition of the methodology(ies). If applicable, provide a general description of the sampling plan.	Full sentence of Para 1 of AMS-II.D(Ver.12.0) is to be described.	CL33	OK
B.2.2	1	Demonstrate that the CPA qualifies as Type I, II, and/or III during every year of the crediting period in accordance with applicable provisions for project activity eligibility in the Project standard.	Demonstration that the CPA qualifies as Type II during every year of the crediting period in accordance with applicable provisions for project activity eligibility in PS is to be described.	CL34	OK
B.2.3	1	Explain documentation that has been used as a basis of justification and provide references or include the documentation in Appendix 3.	Documentation has not been used as a basis of justification.	--	NA
B.3		Sources and GHGs			
B.3.1	1	Describe the sources and GHGs included in each generic CPA boundary.	- The dyeing machines (dyeing process) - The water supply system - The geographical area covering energy sources such as boilers and captive generators at factories. - National grid or isolated grids are also included in the project boundary.	--	OK
B.3.2	1	Where possible, present a flow diagram physically delineating each generic CPAs, based on the descriptions provided in section A.6 “Technologies/measures” of Part I above.	A flow diagram physically delineating each generic CPAs is privided as Figure 21.	--	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
B.3.3	1	Include in the flow diagram all the equipment, systems and flows of mass and energy described in that section. In particular, indicate in the diagram the emissions sources and GHGs included in the project boundary and the data and parameters to be monitored.	The following information is not included in the flow diagram: - Flows of mass and energy - Emissions sources and GHGs included in the project boundary - Data and parameters to be monitored.	CL35	OK
B.4		Description of baseline scenario			
B.4.1	1	Describe how the baseline scenario is identified for each generic CPA.	The baseline scenario is identified as per the methodology AMS II.D. (Version 12). Only one generic CPA is included in the PoA.	--	OK
B.4.2	1	Explain how the baseline scenario is established in accordance with the selected methodology(ies) and applicable provisions for establishment and description of baseline scenarios in the Project standard. Where the procedure in the selected methodology(ies) involves several steps, describe how each step is applied and transparently document the outcome of each step. Explain and justify key assumptions and rationales. Provide and explain all data used to establish the baseline scenario (variables, parameters, data sources, etc.). Provide all relevant documentation and/or references.	In the absence of the CDM project activity, the factories would continue to apply the current dyeing practices to consume energy at historical average levels, until the time at which the dyeing practices would be likely to be replaced by the proposed technologies in the absence of the CDM project activity.	--	OK
B.4.3	1	Provide a transparent description of the baseline scenario as established above.	The current dyeing practices is the use of enzyme wash , hot brand scoring and application of classical reactive dye for celluloses, reactive and disperse dye for CVCs and disperse dye for Polyesters.	--	OK
B.4.4	1	Note: The full description of the technology of the baseline scenario is to be provided in section A.6 of Part I above.	The full description of the technology of the baseline scenario is provided in section A.6 of Part I of the PoA-DD.	--	OK
B.5		Demonstration of eligibility for a generic CPA			

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
B.5.1	1	Demonstrate how each generic CPA meets the eligibility criteria of the PoA including confirmation of additionality of the generic CPA for its inclusion into the PoA.	How a generic CPA meets the eligibility criteria is demonstrated in Table 10.	--	OK
B.6		Estimation of emission reductions of a generic CPA			
B.6.1		Explanation of methodological choices			
B.6.1.1	1	Explain how the methods or methodological steps, in the selected methodology, for calculating baseline emissions, project emissions, leakage emissions and emission reductions are applied to each generic CPA. Clearly state which equations will be used in calculating emission reductions.	It is explained how AMS-II.D.(Ver.12.0) is applied for calculating baseline emissions, project emissions, leakage emissions and emission reductions of the generic CPA. Equations used in calculating emission reductions are clearly stated.	--	OK
B.6.2		Data and parameters that are to be reported ex-ante			
B.6.2.1	1	Include a compilation of information on the data and parameters that are not monitored during the crediting period but are determined before the validation and remain fixed throughout the crediting period. Data that become available only after the registration/inclusion of the CPAs in the PoA (e.g. measurements after the implementation of the CPAs in the PoA) should not be included here but in the table in section B.7.1 below.	A compilation of information on the data and parameters that are not monitored during the crediting period but are determined before the validation and remain fixed throughout the crediting period are included. Data that become available through measurements after the implementation of the CPAs are not be included here but in tables in section B.7.1.	--	OK
B.6.2.2	1	The compilation of information may include data that are measured or sampled, and data that are collected from other sources (e.g. official statistics, expert judgment, proprietary data, IPCC, commercial and scientific literature, etc.). Data that are calculated with equations provided in the selected methodology(ies) or default values specified in the methodology(ies) should not be included in the compilation.	The compilation of information includes data that are measured or sampled, and data that are collected from other sources. No equations and default values are specified in AMS-II.D(Ver.12.0).	--	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
B.6.2.3	1	For each piece of data or parameter, complete the table below, following these instructions: (a) “Value(s) applied”: Provide the value applied. Where a time series of data is used, where several measurements are undertaken or where surveys have been conducted, provide detailed information in Appendix 4. To report multiple values referring to the same data or parameter, use one table. If necessary, reference(s) to electronic spreadsheets may be used;	(a) “Value(s) applied” are appropriately described as follows: - 〖EC〗_(i,j,k,l)^(BL,Batch,dyeing), 〖WC〗_(i,j,k,l)^(BL,Batch), 〖SC〗_(i,j,k,l)^(BL,Batch), Q_discharge^Pump, H_total, 〖FC〗_boiler^fuel and 〖SGC〗_boiler^fuel : Dependent on each CPA. - η_motor and η_pump: 100% - ρ: 1,000 kg/m3 - g: 9.80665 m/s2 - 〖NCV〗_Gen^fuel and 〖NCV〗_boiler^fuel: 46.5 TJ/Gg for natural gas; 41.4 TJ/Gg for diesel - ρ_Gen^fuel and ρ_boiler^fuel: 0.717 kg/m3 for natural gas; 0.84 kg/m3 for diesel - 〖EF〗_CO2^(fuel,gen) and 〖EF〗_CO2^(fuel,boiler): 54,300 kg-CO2/TJ for natural gas; 72,600 kg-CO2/TJ for diesel - 〖EF〗_CO2^Elec: 0.67 tCO2/MWh	--	OK
B.6.2.4	1	For each piece of data or parameter, complete the table below, following these instructions: (b) “Choice of data”: Indicate and justify the choice of data source. Provide clear and valid references and, where applicable, additional documentation in Appendix 4.	(b) “Choice of data” are appropriately described as follows: - 〖EC〗_(i,j,k,l)^(BL,Batch,dyeing), 〖WC〗_(i,j,k,l)^(BL,Batch) and 〖SC〗_(i,j,k,l)^(BL,Batch): Ex-ante measurement by meters or process control and energy management system - Q_discharge^Pump: Maximum discharge capacity for conservativeness - H_total: The shallowest one for conservativeness - η_motor and η_pump: 100% is used for conservativeness - ρ: Density of water at 4 oC - g: Constant value - 〖FC〗_boiler^fuel, 〖SGC〗_boiler^fuel: specification of boilers - 〖NCV〗_Gen^fuel, 〖NCV〗_boiler^fue, 〖EF〗_CO2^(fuel,gen) and 〖EF〗_CO2^(fuel,boiler): IPCC 2006 - ρ_Gen^fuel and ρ_boiler^fuel: ALGAS	--	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
B.6.2.5	1	For each piece of data or parameter, complete the table below, following these instructions: (c) “Measurement methods and procedures”: Where values are based on measurement, include a description of the measurement methods and procedures applied (e.g. which standards have been used), indicate the responsible person/entity that undertook the measurement, the date of the measurement and the measurement results. More detailed information can be provided in Appendix 4.	(c) “Measurement methods and procedures”: For values that are based on measurement, descriptions of the measurement methods and procedures applied are included as follows: - 〖EC〗_(i,j,k,l)^(BL,Batch,dyeing), 〖WC〗_(i,j,k,l)^(BL,Batch) and 〖SC〗_(i,j,k,l)^(BL,Batch): Ex-ante measurement by meters or process control and energy management system.	--	OK
B.6.2.6	1	For each piece of data or parameter, complete the table below, following these instructions: (d) “Purpose of data”: Choose one of the following: (i) Calculation of baseline emissions; (ii) Calculation of project emissions; (iii) Calculation of leakage.	(d) “Purpose of data”: For each parameter, it is selected from (i) Calculation of baseline emissions, (ii) Calculation of project emissions or (iii) Calculation of leakage as follows: - 〖EC〗_(i,j,k,l)^(BL,Batch,dyeing), 〖WC〗_(i,j,k,l)^(BL,Batch) and 〖SC〗_(i,j,k,l)^(BL,Batch): Used to calculate baseline emissions - Others: Uses to calculate baseline and project emissions	--	OK
B.6.3		Ex-ante calculations of emission reductions			
B.6.3.1	1	Provide a transparent ex ante calculation of project emissions, baseline emissions(or, where applicable, direct calculation of emission reductions) and leakage emissions expected during the crediting period, applying all relevant equations provided in the selected methodology. For data or parameters available before validation, use values contained in the table in section B.6.2 above.	As per the formulae given in this PDD Part II Section B 6.2, the ex-ante calculations of the water and energy savings and emission reductions are explained.	--	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
B.6.3.2	1	For data/parameters not available before validation and monitored during the crediting period, use estimates for parameters contained in the table in section B.7.1. If any of these estimates has been determined by a sampling approach, provide a description of the sampling efforts in accordance with the “Standard for sampling and surveys for CDM project activities and programme of activities”.	For data/parameters not available before validation and monitored during the crediting period, estimates for parameters contained in the table in section B.7.1. are used where possible.	--	OK
B.6.3.3	1	Document how each equation is applied, in a manner that enables the reader to reproduce the calculation. Where relevant, provide additional background information and/or data in Appendix 4:, including relevant electronic spreadsheets.	It is documented how each equation is applied, in a manner that enables the reader to reproduce the calculation.	--	OK
B.6.3.4	1	Provide a sample calculation for each equation used, substituting the values used in the equations.	Sample calculation for each equation substituting the values used in the equations is provided.	--	OK
B.7		Application of the monitoring methodology and description of the monitoring plan			
B.7.1		Data and parameters to be monitored by each generic CPA			
B.7.1.1	1	Include specific information on how the data and parameters that need to be monitored would actually be collected during monitoring. Include here data that are determined only once for the crediting period but that will become available only after registration/inclusion of the CPAs in the PoA (e.g. measurements after the implementation of the CPAs in the PoA).	Specific information on how the data and parameters would actually be collected during monitoring is included. Data that will become available by the measurements after the implementation of the CPAs are included.	--	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
B.7.1.2	1	For each piece of data or parameter, complete the table below, following these instructions: (a) “Source of data”: Indicate the source(s) of data that will be used for the CPAs in the PoA (e.g. which exact national statistics). Where several sources may be used, justify which data sources should be preferred;	(a) “Source of data” is appropriately described as follows: - 〖NB〗_(i,j,k,l,y)^PJ, 〖EC〗_(i,j,k,l)^(BL,Batch,dyeing), 〖EC〗_(i,j,k,l)^(PJ,Batch,dyeing), 〖WC〗_(i,j,k,l)^(BL,Batch): CPA implementer, 〖WC〗_(i,j,k,l)^(PJ,Batch): CPA implementer, 〖SC〗_(i,j,k,l)^(BL,Batch) and 〖SC〗_(i,j,k,l)^(PJ,Batch): CPA implementer - 〖EG〗_Gen^Fuel and 〖FC〗_(Gen,y)^Fuel: CPA implementer or isolated grid operator	--	OK
B.7.1.3	1	For each piece of data or parameter, complete the table below, following these instructions: (b) “Value(s) applied”: The value applied is an estimate of the data/parameter that will be monitored during the crediting period, but is used for the purpose of calculating estimated emission reductions. To report multiple values referring to the same data or parameter, use one table. If necessary, reference(s) to electronic spreadsheets may be used;	(b) “Value(s) applied”: The value applied is explained on each CPA	NA	NA
B.7.1.4	1	For each piece of data or parameter, complete the table below, following these instructions: (c) “Measurement methods and procedures”: Where data or parameters are to be monitored, specify the measurement methods and procedures, standards to be applied, accuracy of the measurements, person/entity responsible for the measurements, and, in case of periodic measurements, the measurement intervals;	(c) “Measurement methods and procedures” is appropriately described as follows: - 〖NB〗_(i,j,k,l,y)^PJ: Daily recorded in dyeing books - 〖EC〗_(i,j,k,l)^(BL,Batch,dyeing), 〖EC〗_(i,j,k,l)^(PJ,Batch,dyeing), 〖WC〗_(i,j,k,l)^(BL,Batch), - 〖WC〗_(i,j,k,l)^(PJ,Batch), 〖SC〗_(i,j,k,l)^(BL,Batch) and 〖SC〗_(i,j,k,l)^(PJ,Batch): measuring for each batch based on meters or process control and energy management system installed to dyeing machines at factories - 〖EG〗_Gen^Fuel and 〖FC〗_(Gen,y)^Fuel: Collect from factories or isolated grid operators	--	OK

Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
B.7.1.5	1	For each piece of data or parameter, complete the table below, following these instructions: (d) “QA/QC procedures”: Describe the Quality Assurance (QA)/Quality Control (QC) procedures to be applied, including the calibration procedures, where applicable;	(d) “QA/QC procedures” is appropriately described as follows: - 〖NB〗_(i,j,k,l,y)^PJ: It is a mandatory for dyeing masters to record every batch in each machine in terms of fabric load, fabric type and fabric colour - 〖EC〗_(i,j,k,l)^(BL,Batch,dyeing), 〖EC〗_(i,j,k,l)^(PJ,Batch,dyeing), 〖WC〗_(i,j,k,l)^(BL,Batch), - 〖WC〗_(i,j,k,l)^(PJ,Batch), 〖SC〗_(i,j,k,l)^(BL,Batch) and 〖SC〗_(i,j,k,l)^(PJ,Batch): Calibrations of meters will be conducted as per related guidelines and instructions and cross checks with calculations from dyeing charts - 〖EG〗_Gen^Fuel: Calibrations of power meters will be conducted as per related guidelines and instructions and cross checks with electricity bills. - 〖FC〗_(Gen,y)^Fuel: Calibrations of flow meters will be conducted as per related guidelines and instructions and cross checks with fuel bills.	--	OK
B.7.1.6	1	For each piece of data or parameter, complete the table below, following these instructions: (e) “Purpose of data”: Choose one of the following: (i) Calculation of baseline emissions; (ii) Calculation of project emissions; (iii) Calculation of leakage.	(e) “Purpose of data” is appropriately described as follows: - 〖NB〗_(i,j,k,l,y)^PJ, 〖EG〗_Gen^Fuel and 〖FC〗_(Gen,y)^Fuel: Calculation of baseline and project emissions - 〖EC〗_(i,j,k,l)^(BL,Batch,dyeing), 〖WC〗_(i,j,k,l)^(BL,Batch) and 〖SC〗_(i,j,k,l)^(BL,Batch): Calculation of baseline emissions - 〖EC〗_(i,j,k,l)^(PJ,Batch,dyeing), 〖WC〗_(i,j,k,l)^(PJ,Batch), 〖SC〗_(i,j,k,l)^(PJ,Batch): Calculation of project emissions	--	OK
B.7.1.7	1	Provide any relevant further background documentation in Appendix 5.	No further background documentation is provided in Appendix 5.	NA	NA
B.7.2		Description of the monitoring plan for a generic CPA			
B.7.2.1	1	Describe the monitoring plan for a generic CPA developed in accordance with the approved monitoring methodology(ies).	The monitoring plan for a generic CPA developed in accordance with AMS-II.D. and AMS-I.D. is described	--	OK

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Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
B.7.2.2	1	If data and parameters monitored in section B.7.1 above are determined by a sampling approach, provide a description of the sampling plan in accordance with the recommended outline for a sampling plan in the “Standard for sampling and surveys for CDM project activities and programme of activities”.	No data and parameters monitored in section B.7.1 are determined by a sampling approach.	--	NA
B.7.2.3	1	Provide any relevant further background information in Appendix 5.	No further background documentation is provided in Appendix 5.	NA	NA
Appendix 1		Contact information on entity/individual responsible for the PoA			
Appendix 1.1	1	For each organisation listed in section A.4 above, complete the table below, with the following mandatory fields: Organization, Street/P.O. Box, City, Postcode, Country, Telephone, Fax and E-mail, and Name of contact person. Copy and paste the table as needed.	"Green Project W.S.T" or "Green Project Water Saving Technology", whichever of the formal name, is to be used.	CL32	OK
Appendix 2		Affirmation regarding public funding			
Appendix 2.1	1	If applicable, attach the affirmation obtained from Parties included in Annex I providing public funding to the PoA.	The PoA does not depend on any public funding. In case any CPA under this PoA avails of public funding, it will be required to provide in its CPA-DD that no official development assistance is diverted to the public funding.	OK	OK
Appendix 3		Application of methodology(ies)			
Appendix 3.1	1	Provide any further background information on the applicability of the selected methodology(ies).	No further background information on the applicability of the selected methodology is provided.	NA	NA
Appendix 4		Further background information on ex ante calculation of emission reductions			
Appendix 4.1	1	Provide any further background information on the ex-ante calculation of emission reductions. This may include data, measurement results, data sources, etc.	No further background information on the ex-ante calculation of emission reductions is provided.	NA	NA

Section Seq. No.	Ref. No.	Requirement	Comments	Draft Conc.	Final Conc.
Appendix 5		Further background information on the monitoring plan			
Appendix 5.1	1	Provide any further background information used in the development of the monitoring plan. This may include tables with time series data, additional documentation of measurement equipment, procedures etc.	No further background information used in the development of the monitoring plan is provided.	NA	NA

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Table 4 Resolution of CARs and CLs

Draft Conc.	CARs/CLs raised by the Validation Team	Summary of CME / Project Participant Response	Final Conc.
CAR01	The CME/PPs are requested to demonstrate additionality of CPAs to be included in the PoA based on the latest version of "Guidelines on the demonstration of additionality of small-scale project activities" and to specify which barrier(s) prohibit(s) the project activity.	The CME/PPs have changed the project design so as to include only microscale CPAs to the proposed PoA. Therefore, demonstration of additionality based on "Guidelines on the demonstration of additionality of small-scale project activities" for small scale activities is not relevant.	OK
CAR02	Since Type II energy efficiency project activities that aim to achieve energy savings at a scale of no more than 20 GWhe or 60 GWhth per year for microscale project activities are also to be included in the PoA, the CME/PP are requested to demonstrate additionality based on the latest version of "Guidelines for demonstrating additionality of microscale project activities" for such projects.	Demonstration of additionality of the PoA based on Para 9 (a) of "Guidelines for demonstrating additionality of microscale project activities" is added in Part I, B.1. of the PoA-DD. A eligibility criterion for demonstration of additionality is also revised to “Each CPA should claim energy saving of no more than 60 GWhth per year and emission reductions comparable to that for every year to meet the requirements of guideline of “Demonstrating additionality of micro scale project activities”” as par Para 9 (a) of the guideline.	OK
CL01	The following descriptions in Part I, A.6. of the PoA-DD are to be clarified: - The “fabric singering” is a process for fabric and thus it is not clear why it is categorized into yarn optimization. - It is not clearly described whether “yarn optimization” and “dying optimization" are mutually dependent measures which cannot be done alone or completely independent measures. - Dying chart and comparison table for polyesters (disperse dye and cationic dye) are to be added.	The following rectifications are made: - CME/PP remove "fabric singering", "yarn singering" and "improve the quality of fabric" from the project technologies since possibility of application of these technologies is limited. Instead, “cold brand scouring” is added as one of the project technology. - It is confirmed that three measures introduced by W.S.T, "yarn optimization", "dying optimization" and "cold brand scouring", are independent measures. Although "dying optimization" and "cold brand scouring" will be introduced to every CPA under the PoA, "yarn optimization" will be optional. - Dying chart and comparison table for polyesters (disperse dye and cationic dye) are added.	OK

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Draft Conc.	CARs/CLs raised by the Validation Team	Summary of CME / Project Participant Response	Final Conc.
CL02	The following issues in Part II, A.1. of the PoA-DD are to be clarified: - It is not clear why “yarn optimization” is not described here, although it is described in Part I, A.6. of the PoA-DD. - Energy savings by “other than dyeing machine” described in equations in Part II, B.6.1 is to be specified (such as type of machine, process, measure, etc.) and to be described in this section.	These issues are resolved as follows: - Description of "yarn optimization" is added in Part II, A.1. of the PoA-DD. - Energy savings by "other than dyeing machine" is excluded from emission sources of CPAs under the PoA. Therefore, it is not necessary to describe the information about it.	OK
CL03	In Part I, B.3. and Part II, B.2., applicability check with Para 2 of AMS-II.D. is to be added.	Applicability check with Para 2 of AMS-II.D.(Ver.12.0) is added.	OK
CL04	In Part I, B.3. and Part II, B.2., conformity of "yarn optimization" (see Part I, A.2.) and the "energy saving measures by other than dyeing machine" (see Part II, A.1.) with the applicability conditions of AMS-II.D. is not described specifically.	The "energy saving measures by other than dyeing machine" is excluded from the project technologies. The applicability check of "yarn optimization" is added in Part I, B.3. and Part II, B.2. of the PoA-DD and its compliance with the applicability conditions is confirmed.	OK

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Draft Conc.	CARs/CLs raised by the Validation Team	Summary of CME / Project Participant Response	Final Conc.
CL05	Regarding the description in Part II, B.4., the following issues are to be clarified: - The CME/PP are requested to explain how they take into consideration the interaction between the measures ("yarn optimization", "dying optimization" and "energy saving measures by other than dyeing machine") when establishing the baseline as per Para 7 of AMS-II.D., since the proposed PoA involving multiple energy efficiency measures. - The CME/PP are requested to describe how to determine "the time at which the dyeing practices would be likely to be replaced by the energy and water saving technologies in the absence of the CDM project activity" with reference to Para 9 of AMS-II.D. - CME/PP are requested to explain how the baseline scenario is established in accordance with Para 10 of AMS-II.D regarding emission coefficients for electricity and fossil fuels.	These issues are clarified as follows: - The "energy saving measures by other than dyeing machine" is excluded from the project technologies. The technologies "yarn optimization", "dying process optimization" and "cold brand scouring" are confirmed to be independent measures. Then the description of the baseline scenario is appropriately revised as: "the current dyeing practices is the use of enzyme wash and hot brand scoring, and application of classical reactive dye for celluloses, disperse and reactive dye for CVCs and disperse dye for Polyesters." - The following description is added: "No emission reductions will be claimed from a point of time of the replacement of existing dyeing machines with new dyeing machines onward" - Baseline scenario regarding emission coefficients for electricity and fossil fuels in light of Para 10 of AMS-II.D.(Ver.12.0) is described as follows: "Baseline emissions for electricity are estimated by multiplying the amount of electricity (in kWh/year) by the CO2 emission factor of isolated grid/national grid/captive power generator (in kg CO2/kWh or ton CO2/MWh). On the other hand, baseline emissions for thermal (steam) energy are calculated by multiplying the amount of steam consumption (in ton/year) by an emission factor of steam generation (in ton CO2/ton steam). The emission factor of of steam generation is calculated based on the specification of thermal energy suppliers (boilers) and the IPCC default values for net calorific values and CO2 emission factors of fossil fuels that are used for thermal energy generation."	OK
CL06	Regarding project technologies "yarn optimization" and "energy saving measures by other than dyeing machine", description of the technology that would be employed and/or the activities that would take place in the absence of the proposed project activity are not provided.	The "energy saving measures by other than dyeing machine" is excluded from project technologies. Regarding yarn optimization, baseline technology is defined as use of enzyme wash.	OK

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Draft Conc.	CARs/CLs raised by the Validation Team	Summary of CME / Project Participant Response	Final Conc.
CL07	The CME/PP are requested to take into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector, in the identification of the baseline scenario where applicable.	Through the review of publicly available information and interview with local stakeholders, JQA confirms that there are no national policies or regulations for energy and water saving in textile and garment industry. The following description is added in the revised PoA-DD: “In Bangladesh textile and garment industry, there has been no any mandatory policy or regulation for energy and water saving”.	OK
CL08	Regarding Part II, B.6.1. of the PoA-DD, the equations are to be reviewed taking the following comments into consideration: - In Eq. (2), 〖EC〗_(Dyeing,y)^BLis defined as "Baseline emission from electricity consumption by dyeing processes in year y". However, it includes 〖EC〗_(m,y)^BL(Historical average electricity consumption of a targeted machine m in the factory by the project other than dyeing machine in a year y) that is outside of the dying process. This equation is to be revised to avoid confusion. The same kind of revision is also to be made for Eqs. (3), (4), (8), (9) and (10). - "Other than dying machine" is to be specified and the equations to calculate the baseline/project emissions in "other than dying machine" are to be revised so as to reflect the possible variation in energy consumption by type of machine, yarn, fabric, load, etc. - The calculation to obtain 〖EF〗_CO2^(PJ,elec) = 0.584, based on Para 10 of AMS-II.D., is to be clearly described in Part II, B.4., B.6.1, Appendix 3 or Appendix 4 of the PoA-DD. - There are two options for 〖EF〗_CO2^(PJ,elec). The CME/PP shall clearly define under what case each value/equation is to be applied. - Regarding Eq. (3) and (9), number of tanks at ETP is used to describe the number of pumps used at Effluent Treatment Plant (ETP). The CME/PP are requested to justify why (Number of tanks -1) always equal to the number of pumps in an ETP of a CPA included in the PoA.	These issues are resolved as follows: - “Energy efficiency measures other than dyeing machines” are excluded from the project technologies and parameters and equations relevant to this emission source are also removed. - “Energy efficiency measures other than dyeing machines” are excluded from the project technologies. - The national grid emission factor in Bangladesh used by a CPA under the PoA is provided with No. DOE/International Convention/2012/21/07, 19/08/2013 (Ref. 14) and the applied value is revised to 0.67 tCO2e/MWh. The original data and calculation procedures for the national grid emission factor are not disclosed by the Bangladesh DNA. - Description about the condition to apply each electricity emission factor is added in Part II, B.6.1. of the PoA-DD as follows: “In the case where textile and garment factories use electricity steadily from national grid, the Bangladesh national grid emission factor (combined margin) officially published by DNA (designated national authority) will be applied.” and “If the factories use electricity from their own generators or isolated grid that provide electricity to specific region where the factories are located, the emission factor of the power plant is calculated ex-post by the following equation based on AMS-I.D (version17) with data on fuel type, fuel input and power output obtained from generators or each plant.” - Electricity consumptions by pumps used to transport wastewater from tank to tank are excluded from the baseline/project emission sources and thus parameters and equations relevant to this source are also excluded.	OK

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Draft Conc.	CARs/CLs raised by the Validation Team	Summary of CME / Project Participant Response	Final Conc.
CL09	The baseline emission coefficient including 〖EF〗_CO2^(BL,elec), 〖EF〗_CO2^(BL,steam), 〖EC〗_(fresh,water)^(BL,pumping) and 〖EC〗_(waste,water)^(BL,pumping) are planned to be determined ex-ante by the past three years or at least one-year data. However, according to "Bangladesh Textile Factory Survey Report in the Field of Energy & Water Saving" issued by Japan Textile Consultants' Centre (JTCC) in September 2012, there are plenty rooms for improvement of energy efficiency in power generators and boilers (and possibly pumps) used in textile and garment factories in Bangladesh. Therefore, if energy efficiency improvement activities or replacement with high efficient equipment are conducted for power generators, boilers and pumps after the implementation of the PoA independently from the PoA, 〖EF〗_CO2^(PJ,elec), 〖EF〗_CO2^(PJ,steam), 〖EC〗_(fresh,water)^(PJ,pumping) and 〖EC〗_(waste,water)^(PJ,pumping), which are determined by ex-post monitored values, will become smaller than corresponding baseline parameters to result in higher emission reductions. Furthermore, this also could results in violation of Para 4 of AMS-II.D. (This category is applicable to project activities where the impact of the measures implemented by the project activity can be clearly distinguished from changes in energy use due to other variables not influenced by the project activity). The CME/PP are requested to review the current approach so as to ensure accuracy and conservativeness.	〖EC〗_(waste,water)^(BL,pumping) and 〖EC〗_(waste,water)^(PJ,pumping) are excluded from the equations since electricity consumption by pumps used to transport wastewater from tank to tank is excluded from the baseline/project emission sources. The parameters for electricity emission factor (〖EF〗_CO2^(BL,elec) and 〖EF〗_CO2^(PJ,elec)), steam emission factor (〖EF〗_CO2^(BL,steam) and 〖EF〗_CO2^(PJ,steam)) specific electricity consumption by fresh water pumping (〖EC〗_(fresh,water)^(BL,pumping) and 〖EC〗_(fresh,water)^(PJ,pumping)) are integrated into a single parameter and thus the same emission coefficient is come to be used for calculation of baseline and project emissions.	OK

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Draft Conc.	CARs/CLs raised by the Validation Team	Summary of CME / Project Participant Response	Final Conc.
CL10	Para 9 of AMS-II.D. ("In the absence of the CDM project activity, the existing facility(ies) would continue to consume energy (ECBL in GWh/year) at historical average levels (ECHY in GWh/year), until the time at which the industrial or mining and mineral production facility(ies) would be likely to be replaced, modified or retrofitted in the absence of the CDM project activity (DATEBaselineRetrofit). From that point of time onwards, the baseline scenario is assumed to correspond to the project activity, and baseline energy consumption (ECBL) is assumed to equal project energy consumption (ECPJ,y in GWh/year), and no emission reductions are assumed to occur.") is not clearly addressed in Part II, B.6.1 of the PoA-DD.	The description "The CPAs under the PoA will not replace any dyeing machine in the target textile and garment factories. Only existing dyeing machines in a factory before project implementation are targeted throughout the crediting period." is added in Part II, B.6.1 of the PoA-DD. Energy consumption at historical average level would be applied until the time at which existing dyeing machines is replaced, modified or retrofitted as per Para 9 of AMS-II.D(Ver.12.0).	OK
CL11	The CME/PP are requested to demonstrate that any CPA does not involve the replacement of equipment. If a CPA involves the replacement of equipment, leakage effect is to be assessed based on Para 15 of AMS-II.D (independent monitoring of scrapping of replaced equipment need to be implemented).	Through the on-site assessment and the interview with CME/PP and CPA implementer, JQA confirms that the technology/measure installed by the proposed PoA is the modification of dyeing/pretreatment process and/or yarn and did not replace existing equipment (dyeing machine). Since any CPA does not involve the replacement of equipment, leakage is not necessary to be considered.	OK
CL12	Regarding Part II, B.6.2. of the PoA-DD, the following confusion of parameters/ abbreviations are to be resolved: - It is not clear why 〖EC〗_(m,y)^BL in Eq. (2), 〖WC〗_(m,y)^BL in Eq. (3), 〖SC〗_(m,y)^BL in Eq. (4) in Part II, B.6.1. are not described in Part II, B.6.2. - Two different definitions ("Density of the fuel for generators" and "Density of the fuel for boilers") are provided for 〖De〗_gen^fuel in Part II, B.6.2.	The confusion of parameters/ abbreviations was rectified as follows: - Energy efficiency measures other than dyeing machines are excluded from the project technologies. Subsequently, 〖EC〗_(m,y)^BL, 〖WC〗_(m,y)^BL and 〖SC〗_(m,y)^BL are deleted. - Different abbreviations are given for "Density of the fuel for generators" and "Density of the fuel for boilers".	OK

Appendix A

Draft Conc.	CARs/CLs raised by the Validation Team	Summary of CME / Project Participant Response	Final Conc.
CL13	The values applied for〖EF〗_CO2^(fuel,gen) quoted from 2006 IPCC are to be corrected to the values at the lower limit of the uncertainty at a 95% confidence interval for conservativeness.	The following values, at the lower limit of the uncertainty at a 95% confidence interval, are applied in the revised PoA-DD. - 54,300 kgCO2/TJ for natural gas - 72,600 kgCO2/TJ for diesel	OK
CL14	Regarding the additionality, the evidence / basis of the following statement in Part I, B.1. of the PoA-DD is to be provided: "As dominant common dyeing practice for cellulose (mainly cotton) in Bangladesh is reactive dyeing with medium quality yarns, the energy and water saving technologies are hardly disseminated without efforts of the CME. Hence, avoidance of anthropogenic GHG emissions would have not occurred in the absence of this PoA; current practices would be used continuously."	Through the interview with several dyeing factories, dye chemical suppliers and Bangladesh Garment Manufacturers and Exporters Association (BGMEA) on-site, and the review of publicly available information , JQA confirms that the statement described in Part I, B.1. of the PoA-DD is correct. Reactive dyeing with medium quality yarn are generally used and energy and water saving measures are rarely conducted because of no or very low water and energy cost.	OK
CL15	The CME/PP are requested to justify how the monitoring parameters in Part II, B.7.1 of the PoA-DD satisfy AMS-II.D. with respect to; - Para 12 (a): Documenting the specifications of the equipment replaced. - Para15 (for PoA; if applicable): The monitoring should include a check if the number of project activity equipment distributed by the project and the number of scrapped equipment correspond with each other. For this purpose, scrapped equipment should be stored until such correspondence has been checked. The scrapping of replaced equipment should be documented and independently verified.	It was confirmed as follows: - Para 12 (a): Specifications of the replaced dyeing process will be recorded by the parameters 〖EC〗_i,j,k,l^(BL,Batch,dyeing), 〖WC〗_i,j,k,l^(BL,Batch) and 〖SC〗_i,j,k,l^(BL,Batch). - Para15: This is not applicable since the proposed PoA does not involve replacement of equipment (dyeing machines).	OK

Appendix A

Draft Conc.	CARs/CLs raised by the Validation Team	Summary of CME / Project Participant Response	Final Conc.
CL16	Regarding the means of monitoring described in in Part II, B.7.1 of the PoA-DD, the following issues are to be clarified: - The measurement method for 〖SC〗_(i,j,k,l)^(PJ,Batch) and 〖SC〗_(m,y)^(PJ) includes two different ways, namely, calculation based on the dyeing charts and measurement by a steam meter. Please clarify which method is actually used. - It is not specified what kind of monitoring equipment is used for monitoring of 〖EC〗_(fresh,water)^(PJ,pumping), 〖EC〗_(waste,water)^(PJ,pumping), 〖EG〗_gen^(PJ,fuel) , 〖FC〗_gen^(PJ,fuel), 〖SP〗_steam^(PJ,fuel) and 〖FC〗_steam^(PJ,fuel) and QA/QC procedures (e.g. calibration) applied to them.	These issues were clarified as follows: - The parameter 〖SC〗_(m,y)^(PJ) is removed since energy savings other than dyeing machines are excluded from the project technologies. The measurement method for 〖SC〗_(i,j,k,l)^(PJ,Batch) is specified as “measuring for each batch based on flow meters or process control and energy management system installed to dyeing machines at factories”. - 〖EC〗_(fresh,water)^(PJ,pumping) is removed since energy consumption from wastewater pumping is excluded from the baseline/project emission sources. The monitoring parameter. 〖EC〗_(waste,water)^(PJ,pumping) is revised to be determined ex-ante based on the specifications of pumps in a conservative manner. 〖EG〗_gen^(PJ,fuel) is revised to 〖EG〗_(Gen,y)^(Fuel) and electricity meter is planned to be used for monitoring as described in in Part II, B.7.1 of the PoA-DD. 〖FC〗_gen^(PJ,fuel) is revised to 〖FC〗_(Gen,y)^(Fuel) and flow meter is planned to be used for monitoring as described in Part II, B.7.1 of the PoA-DD. 〖SP〗_steam^(PJ,fuel) and 〖FC〗_steam^(PJ,fuel) are revised to be determined ex-ante based on the specifications of boilers in a conservative manner. Calibration of meters and cross-check with the calculation from dyeing charts are also added as QA/QC procedures for these monitoring parameters.	OK
CL17	It is not clear how "dye bath water ratio" can be used for cross-check of 〖WC〗_(i,j,k,l)^(PJ,Batch) and 〖WC〗_(m,y)^PJ, which are measured by scales attached to the water tanks, since water consumption by a dyeing batch cannot be determined solely by the "dye bath water ratio".	The description is corrected to “cross check with calculations from dyeing charts”.	OK
CL18	The CME/PP are requested to clarify whether the EIA is required to CPAs under the PoA in accordance with the Bangladesh laws and regulations.	The EIA is not required to the CPAs under the PoA. The CME/PP has provided “The Environmental Conservation Rule of Bangladesh, 1997” as an evidence. Through the review of the document, JQA confirms that EIA is not legally required to CPAs under the PoA in Bangladesh.	OK

Appendix A

Draft Conc.	CARs/CLs raised by the Validation Team	Summary of CME / Project Participant Response	Final Conc.
CL19	The CME is requested to develop and provide the following documents used in its management system as per the PoA-DD: - Database format for CPAs - Monthly and annual status report format used for monitoring by each CPA - W.S.T's internal procedures for technical review of inclusion of CPAs - Training program for CPA implementers - Operation and monitoring manual	The CME has developed the following documents used for PoA management system: - Monthly and annual database format used for recording data of each CPA inputted by CME based on the dyeing registered book produced at each CPA. - Operation and Monitoring Manual including W.S.T's internal procedures for technical review of inclusion of CPAs, training program for CPA implementers, etc.	OK
CL20	In establishing the boundary of the PoA, it is not clear how CME/PP have taken into consideration all applicable national and/or sectoral policies and regulations within that chosen boundary.	Through the interview with BGMEA, dyeing factories and dye chemical suppliers, JQA confirms that Bangladesh has no national and/or sectoral policies and regulations regarding the energy efficiency measures for dyeing factories and thus policies and regulations do not influence on the project boundary.	OK
CL21	Regarding the criterion “The name and the address of the factory are defined” described in Part I, B.2. and Part II, B.5 of the PoA-DD (A.2 and 2), it is highly unlikely that there are factories which name and address are not defined. The CME/PP are requested to revise this criterion more specifically so as to satisfy Para 16 (a) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.	The criterion is revised to “1. Each CPA should target an existing textile and garment factory in Bangladesh and the registered name and address of a factory in each CPA should be given clearly.”	OK

Appendix A

Draft Conc.	CARs/CLs raised by the Validation Team	Summary of CME / Project Participant Response	Final Conc.
CL22	Regarding the criterion “There is unique identification of the target factory” described in Part I, B.2. and Part II, B.5 of the PoA-DD (B.2 and 4), it is necessary to specify what "unique identification" is, and how the CME/PP determine the unique identification with reference to Para 16 (b) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.	The criterion is revised to “2. Each CPA is a new project that is not a registered CDM or CPA under the other PoA” so as to be a condition that avoid double counting of emission reductions as per Para 16 (b) of the Standard.	OK
CL23	Regarding the criterion “Is it possible to submit specification of technology/measure when the DOE validates or verify?” described as C.1. in Part I, B.2. and Part II, B.5 of the PoA-DD (C.1 and 5), the CME/PP shall describe specific technology/measure eligible for CPAs under the PoA with reference to Para 16 (c) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.	The criterion is revised to “3. Specifications of technologies/measures such as specifications of dyeing machines, dyeing methods, yarn types, boiler specifications and specification of pumps for water supply should be available.” so as to be a condition that defines specifications of technology/measure as per Para 16 (c) of the Standard.	OK
CL24	Regarding the criterion “The start date of a CPA is not, or will not be, prior to the commencement of validation of the PoA.” described in Part I, B.2. and Part II, B.5 of the PoA-DD (D.1. and 6), the CME/PP shall specify documentary evidence used as the basis of the start date of a CPA with reference to Para 16 (d) of “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities”.	The criterion is revised to “4. The start date (the date of signing of "Application of Membership of Green Project W.S.T. Limited and Participation of CDM-PoA") of any CPA should not be prior to 01 December 2012 that is the date of publication of the PoA-DD for global stakeholder consultation.”	OK

Appendix A

Draft Conc.	CARs/CLs raised by the Validation Team	Summary of CME / Project Participant Response	Final Conc.
CL25	The criterion "If the achieved energy saving of a CPA is more than 60 GWhth per year, a barrier due to prevailing practice is applied. The prevailing dyeing practice in Bangladesh Textile and Garment industry is reactive dyes for cellulose; disperse dyes for CVC and polyester" described in Part I, B.2. of the PoA-DD (F.1) and "If the above condition is not satisfied, a barrier due to prevailing practice in Bangladesh Textile and Garment industry that is reactive dyes for cellulose; disperse dyes for CVC and polyester would prevent occurrence of CPAs" described in Part II, B.5 of the PoA-DD (8), shall be unified and revised since these sentences do not give any objective criteria.	The criterion is revised to "6. Each CPA should claim energy saving not more than 60GWhth per year for meeting the requirements of guideline of "Demonstrating additionality of micro scale project activities" (Version 05.0) since only micro-scale projects come to be included in CPAs under the PoA.	OK
CL26	The criterion "A CPA performs local stakeholder consultation (LSC) before the inclusion of SSC-CPA.", which is described as in Part I, B.2. and Part II, B.5 of the PoA-DD (G.1 and 10), is contradicting with the description in Part I, F.1 of the PoA-DD that LSC is performed at the PoA level. In addition, the criterion "A CPA does not need to perform the environmental impacts analysis according to the regulation of Bangladesh", described as G.2. in Part I, B.2. of the PoA-DD and No. 11 in Part II, B.5 of the PoA-DD is to be revised or deleted since it do not give any objective criterion. Refer to Para 16 (g) of "Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities".	These criteria are removed. LSC meeting is conducted at the PoA level.	OK

Appendix A

Draft Conc.	CARs/CLs raised by the Validation Team	Summary of CME / Project Participant Response	Final Conc.
CL27	The criterion “A CPA does not use any fund from Annex I parties”, which is described in Part I, B.2. and Part II, B.5. of the PoA-DD (H.1 and 12), and the criterion “If a CPA uses a fund from Annex I parties then it does not result in a diversion of official development assistance”, which is description in Part I, B.2. and Part II, B.5 of the PoA-DD (H.2. and 13), are mutually exclusive and thus integrated into single eligibility criterion because, for inclusion, a CPA under the PoA need to satisfy all eligibility criteria specified in the PoA.	These criteria are combined to “7. Any CPA that uses any public fund from Annex I parties should demonstrate the public fund is not a diversion of official development assistance”.	OK
CL28	Regarding the criterion “A CPA-DD applies 95/10 (confidence /precision) for any necessary survey according” described in Part I, B.2. and Part II, B.5 of the PoA-DD (as J.1. and 14), the CME/PP are requested to specify the parameters to which sampling will be applied.	Since the sampling is not applied to CPAs under the PoA, this criterion is removed.	OK
CL29	Regarding the criterion “Is the crediting period of a CPA is within the crediting period of the PoA?” described in Part I, B.2. and Part II, B.5 of the PoA-DD (M.1. and 17), the terminology of "crediting period of PoA" is inappropriate. Refer to the latest version of “Glossary: CDM Terms”.	The criterion is removed. Since it is mandatory requirement based on Para 166 of PS not a specific to the PoA, this criterion is considered to be not necessary.	OK
CL30	The CME/PP are requested to make a thorough review of eligibility criteria because they show a mixture of declarative sentences and interrogative sentences. Furthermore, it is not clear when yes or no each eligibility criterion is satisfied.	All eligibility criteria are described as declarative sentences.	OK

Appendix A

Draft Conc.	CARs/CLs raised by the Validation Team	Summary of CME / Project Participant Response	Final Conc.
CL31	In Part I, A.3. of the PoA-DD, it is described that: "Textile and Garment factories in Bangladesh are ...participants of the PoA." Regarding this description, the CME/PP are requested to clarify whether the textile and garment factories are project participants of the PoA, which is necessary to be authorized by the DNA of a Party involved.	The description is revised to “Textile and Garment factories in Bangladesh are the operators and implementers of CPAs under the PoA. However, they are not required to be project participants (as per Annex 29 to EB47 Report, paragraph 6, “the operators of individual CPAs are not required to be project participants”)”.	OK
CL32	A single shortened form for "Green Project Water Saving Technology" (either "W.S.T" or "Green Project W.S.T") is to be used throughout the PoA-DD to avoid confusion.	Only “The Green Project W.S.T®” is used in the revised PoA-DD.	OK
CL33	In Part I, B.3.1 of the PoA-DD, the full sentence of Para 1 of AMS-II.D is to be described.	The full sentence of Para 1 of AMS-II.D(Ver.12.0) is described in the revised PoA-DD.	OK
CL34	Demonstration that the CPA qualifies as Type II during every year of the crediting period in accordance with applicable provisions for project activity eligibility in PS is to be described.	The following description is added: “For every year during the crediting period, the aggregate energy savings of each CPA under the PoA will not exceed 60 GWhth per year.”	OK
CL35	The following information is not included in the flow diagram: - Flows of mass and energy - Emissions sources and GHGs included in the project boundary - Data and parameters to be monitored.	Flows of mass and energy, the emissions sources and GHGs included in the project boundary and the data and parameters to be monitored are added in Figure 21 in Part II, B.3. of the PoA-DD.	OK

Certificate

Name	**Mr. Hiroshi Motokawa**
Assessor No.	**CDM-AS-102**
Date of registration	**22nd May 2009**

This is to certify that Mr. Hiroshi Motokawa
is registered as CDM Assessor
by Japan Quality Assurance Organization.

Date 16th April 2012

Japan Quality Assurance Organization

Senior Executive

Team Leader Qualification

The above mentioned assessor is qualified as Team Leader.

Date of qualification **12th August 2011**

Date 16th April 2012

Japan Quality Assurance Organization

Senior Executive

Appendix B

Grant of technical area within CDM/JI sectoral scope

Name: Mr. Hiroshi Motokawa

Sectoral Scope(SS)		Technical Area(TA)		Granted date
SS1	Energy industries (renewable / non-renewable sources)	TA 1.1:	Thermal energy generation from fossil fuels and biomass including thermal electricity from solar (COMPLEX)	
		TA 1.2:	Energy generation from renewable energy sources	28th Dec. 2010
SS2	Energy distribution	TA 2.1:	Electricity distribution	
		TA 2.2:	Heat distribution	
SS3	Energy demand	TA 3.1:	Energy demand	
SS4	Manufacturing industries	TA 4.1:	Cement sector (COMPLEX)	
		TA 4.2:	Aluminum (COMPLEX)	
		TA 4.3:	Iron and steel (COMPLEX)	
		TA 4.4:	Refinery (COMPLEX)	
		TA 4.5:	Chemical industry (COMPLEX)	
		TA 4.6:	Other production	
SS5	Chemical industry	TA 5.1:	Chemical process industries (COMPLEX)	
SS6	Construction	TA 6.1:	Construction	
SS7	Transport	TA 7.1:	Transport	
SS8	Mining/Mineral production	TA 8.1:	Mining and mineral processes, excluding those included in TA 8.2 below	
		TA 8.2:	Oil and gas industry, coal mine methane recovery and use (COMPLEX)	
SS9	Metal production	TA 9.1:	Metal production	
SS10	Fugitive emissions from fuels (solid, oil and gas)	TA 10.1:	Mining and mineral processes, excluding those included in TA 10.2 below	
		TA 10.2:	Oil and gas industry, coal mine methane recovery and use (COMPLEX)	
SS11	Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride	TA 11.1:	Chemical process industries (COMPLEX)	
		TA 11.2:	GHG capture and destruction	
SS12	Solvents use	TA 12.1:	Chemical process industries (COMPLEX)	
SS13	Waste handling and disposal	TA 13.1:	Waste handling and disposal	1st Feb.2011
		TA 13.2:	Animal waste management	
SS14	Afforestation and reforestation/Land-use, land-use change and forestry	TA 14.1:	Forestry	
SS15	Agriculture	TA 15.1:	Agriculture	
		TA 15.2:	Animal waste management	

This is to certify that Mr. Hiroshi Motokawa is granted the above technical areas within sectoral scopes by the Japan Quality Assurance Organization.

Date: 16th Apr. 2012

Director of the Global Environment Department
Japan Quality Assurance Organization

浅輪紀男

Norio Asawa

Certificate

Name	**Ms. Akiko Furuya**
Assessor No.	**CDM-AS-106**
Date of registration	**1st June 2011**

This is to certify that Ms. Akiko Furuya

is registered as CDM Assessor

by Japan Quality Assurance Organization.

Date 16th April 2012

Japan Quality Assurance Organization

Senior Executive

Team Leader Qualification

The above mentioned assessor is qualified as Team Leader.

Date of qualification

Date

Japan Quality Assurance Organization

Senior Executive

Appendix B

Grant of technical area within CDM/JI sectoral scope

Name: Ms. Akiko Furuya

Sectoral Scope(SS)		Technical Area(TA)		Granted date
SS1	Energy industries (renewable / non-renewable sources)	TA 1.1:	Thermal energy generation from fossil fuels and biomass including thermal electricity from solar (COMPLEX)	
		TA 1.2:	Energy generation from renewable energy sources	1st June.2011
SS2	Energy distribution	TA 2.1:	Electricity distribution	
		TA 2.2:	Heat distribution	
SS3	Energy demand	TA 3.1:	Energy demand	
SS4	Manufacturing industries	TA 4.1:	Cement sector (COMPLEX)	
		TA 4.2:	Aluminum (COMPLEX)	
		TA 4.3:	Iron and steel (COMPLEX)	
		TA 4.4:	Refinery (COMPLEX)	
		TA 4.5:	Chemical industry (COMPLEX)	
		TA 4.6:	Other production	
SS5	Chemical industry	TA 5.1:	Chemical process industries (COMPLEX)	
SS6	Construction	TA 6.1:	Construction	
SS7	Transport	TA 7.1:	Transport	
SS8	Mining/Mineral production	TA 8.1:	Mining and mineral processes, excluding those included in TA 8.2 below	
		TA 8.2:	Oil and gas industry, coal mine methane recovery and use (COMPLEX)	
SS9	Metal production	TA 9.1:	Metal production	
SS10	Fugitive emissions from fuels (solid, oil and gas)	TA 10.1:	Mining and mineral processes, excluding those included in TA 10.2 below	
		TA 10.2:	Oil and gas industry, coal mine methane recovery and use (COMPLEX)	
SS11	Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride	TA 11.1:	Chemical process industries (COMPLEX)	
		TA 11.2:	GHG capture and destruction	
SS12	Solvents use	TA 12.1:	Chemical process industries (COMPLEX)	
SS13	Waste handling and disposal	TA 13.1:	Waste handling and disposal	1st June.2011
		TA 13.2:	Animal waste management	1st June.2011
SS14	Afforestation and reforestation/Land-use, land-use change and forestry	TA 14.1:	Forestry	
SS15	Agriculture	TA 15.1:	Agriculture	
		TA 15.2:	Animal waste management	1st June.2011

This is to certify that Ms. Akiko Furuya is granted the above technical areas within sectoral scopes by the Japan Quality Assurance Organization.

Date: 16th Apr. 2012

Director of the Global Environment Department
Japan Quality Assurance Organization

浅輪紀男
Norio Asawa

Certificate

Name	**Mr. Hiroshi KOBAYASHI**
Technical Expert No.	**CDM-TE104**
Date of registration	**20th June, 2013**

This is to certify that Mr. Hiroshi KOBAYASHI is registered as CDM Technical Expert by Japan Quality Assurance Organization.

Date **20th June, 2013**

Japan Quality Assurance Organization

Senior Executive

Appendix B

Grant of technical area within CDM/JI sectoral scope

Name: Mr. Hiroshi Kobayashi

Sectoral Scope(SS)		Technical Area(TA)		Granted date
SS1	Energy industries (renewable / non-renewable sources)	TA 1.1:	Thermal energy generation from fossil fuels and biomass including thermal electricity from solar (COMPLEX)	28th June 2011
		TA 1.2:	Energy generation from renewable energy sources	
SS2	Energy distribution	TA 2.1:	Electricity distribution	
		TA 2.2:	Heat distribution	
SS3	Energy demand	TA 3.1:	Energy demand	29th October 2012
SS4	Manufacturing industries	TA 4.1:	Cement sector (COMPLEX)	
		TA 4.2:	Aluminum (COMPLEX)	
		TA 4.3:	Iron and steel (COMPLEX)	28th June 2011
		TA 4.4:	Refinery (COMPLEX)	
		TA 4.5:	Chemical industry (COMPLEX)	
		TA 4.6:	Other production	28th June 2011
SS5	Chemical industry	TA 5.1:	Chemical process industries (COMPLEX)	
SS6	Construction	TA 6.1:	Construction	
SS7	Transport	TA 7.1:	Transport	
SS8	Mining/Mineral production	TA 8.1:	Mining and mineral processes, excluding those included in TA 8.2 below	
		TA 8.2:	Oil and gas industry, coal mine methane recovery and use (COMPLEX)	
SS9	Metal production	TA 9.1:	Metal production	
SS10	Fugitive emissions from fuels (solid, oil and gas)	TA 10.1:	Mining and mineral processes, excluding those included in TA 10.2 below	
		TA 10.2:	Oil and gas industry, coal mine methane recovery and use (COMPLEX)	
SS11	Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride	TA 11.1:	Chemical process industries (COMPLEX)	
		TA 11.2:	GHG capture and destruction	
SS12	Solvents use	TA 12.1:	Chemical process industries (COMPLEX)	
SS13	Waste handling and disposal	TA 13.1:	Waste handling and disposal	
		TA 13.2:	Animal waste management	
SS14	Afforestation and reforestation/Land-use, land-use change and forestry	TA 14.1:	Forestry	
SS15	Agriculture	TA 15.1:	Agriculture	
		TA 15.2:	Animal waste management	

This is to certify that Mr. Hiroshi Kobayashi is granted the above technical areas within sectoral scopes by the Japan Quality Assurance Organization.

Date: 29th October 2012

Director of the Global Environment Department
Japan Quality Assurance Organization

浅輪紀男 Norio Asawa

Certificate

Name	**Dr. Tadashi Yoshida**
Reviewer No.	**CDM-TR-104**
Date of registration	**8th October 2010**

This is to certify that Dr. Tadashi Yoshida is registered as CDM Technical Reviewer by Japan Quality Assurance Organization.

Date **16th April 2012**

Japan Quality Assurance Organization

Senior Executive

Appendix B

Grant of technical area within CDM/JI sectoral scope

Name: Dr.Tadashi Yoshida

Sectoral Scope(SS)		Technical Area(TA)		Granted date
SS1	Energy industries (renewable / non-renewable sources)	TA 1.1:	Thermal energy generation from fossil fuels and biomass including thermal electricity from solar (COMPLEX)	17th Sep. 2013
		TA 1.2:	Energy generation from renewable energy sources	28th Dec. 2010
SS2	Energy distribution	TA 2.1:	Electricity distribution	
		TA 2.2:	Heat distribution	
SS3	Energy demand	TA 3.1:	Energy demand	17th Sep. 2013
SS4	Manufacturing industries	TA 4.1:	Cement sector (COMPLEX)	
		TA 4.2:	Aluminum (COMPLEX)	
		TA 4.3:	Iron and steel (COMPLEX)	
		TA 4.4:	Refinery (COMPLEX)	28th Dec. 2010
		TA 4.5:	Chemical industry (COMPLEX)	28th Dec. 2010
		TA 4.6:	Other production	28th Dec. 2010
SS5	Chemical industry	TA 5.1:	Chemical process industries (COMPLEX)	28th Dec. 2010
SS6	Construction	TA 6.1:	Construction	
SS7	Transport	TA 7.1:	Transport	
SS8	Mining/Mineral production	TA 8.1:	Mining and mineral processes, excluding those included in TA 8.2 below	
		TA 8.2:	Oil and gas industry, coal mine methane recovery and use (COMPLEX)	
SS9	Metal production	TA 9.1:	Metal production	
SS10	Fugitive emissions from fuels (solid, oil and gas)	TA 10.1:	Mining and mineral processes, excluding those included in TA 10.2 below	
		TA 10.2:	Oil and gas industry, coal mine methane recovery and use (COMPLEX)	
SS11	Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride	TA 11.1:	Chemical process industries (COMPLEX)	28th Dec. 2010
		TA 11.2:	GHG capture and destruction	
SS12	Solvents use	TA 12.1:	Chemical process industries (COMPLEX)	28th Dec. 2010
SS13	Waste handling and disposal	TA 13.1:	Waste handling and disposal	29th May 2012
		TA 13.2:	Animal waste management	
SS14	Afforestation and reforestation/Land-use, land-use change and forestry	TA 14.1:	Forestry	
SS15	Agriculture	TA 15.1:	Agriculture	
		TA 15.2:	Animal waste management	

This is to certify that Dr. Tadashi Yoshida is granted the above technical areas within sectoral scopes by the Japan Quality Assurance Organization.

Date: 17 September 2013

Director of the Global Environment Department
Japan Quality Assurance Organization

浅輪紀男

Mr. Norio Asawa

Appendix C

Expertise and Experience of Assessors and Technical Reviewer

Hiroshi MOTOKAWA

He holds a Bachelor's degree in economics. Before joining JQA, he had been engaged in planning and management of the recycling facility, also engaged in the studies of Life Cycle Assessment at Consulting firm. His expertise is LCA study including ecological balances of the energy production systems such as thermal power, hydropower, etc. He has successfully completed GHG Validator/Verifier Training Program, also ISO 14001 Training Course to be qualified as a provisional auditor. He has participated in various CDM projects, both validation and verification in JQA.

Akiko FURUYA

She holds a Bachelor's degree in agriculture and Master's degree in environmental study. Before joining JQA, she had worked as an environmental consultant and engaged in environmental and social impact analysis of overseas large-scale development projects, survey of overseas environmental legislation and Official Development Assistance (ODA) projects, writing PDD and monitoring reports for CDM projects. She has successfully completed GHG Validator/Verifier Training Program, also ISO 14001 Training Course to be qualified as a provisional auditor. She has participated in various CDM projects, both validation and verification in JQA.

Hiroshi KOBAYASHI

He holds a Bachelor’s degree in mechanical engineering. He is a qualified Energy Management Engineer of Heat and Electricity, an Administrator for Pollution Prevention (Air Pollution 1st Class) and also a Boiler Engineer (Special Class).
He had been engaged in an Iron and Steel field for thirty years and also had been involved in the planning and operation in the field of Electricity and Heat production. In JQA, he has participated in several CDM assessments as a technical expert. Also he has done technical review on several verification projects.

Tadashi YOSHIDA

He holds a Bachelor’s degree, a Master’s degree and Ph.D. in chemical engineering. Before joining JQA, he had been engaged in the research and development in a field of chemical processes for 34 years at a national research institute and published over 100 technical papers and articles mainly about the coal liquefaction and natural gas convention technologies. He has successfully completed GHG Validator/Verifier

Training Program and also ISO 14001 Training Course to be qualified as provisional auditor. He has participated in various CDM projects, both validation and verification in JQA.