



ASSESSMENT

REGARDING POST REGISTRATION CHANGES

TBEC (LAO) SOLE CO., LTD.

TBEC LIG BIOGAS PROJECT

Report No: 8000449179 – 15/099

Date: 2015-09-01

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Assessment Report on post registration changes	Report No.	Rev. No.	Date of 1st issue:	Date of this rev.
	8000449179 – 15/099	0	2015-08-07	-
Project:	Title:		Registr. date:	UNFCCC-No.:
	TBEC LIG Biogas Project		2012-11-16	8126
Project Participant(s):	Host Country PP – Name:		Host Party:	
	TBEC (Lao) Sole Co., Ltd ; Carbon Bridge Pte Ltd		Lao People's Democratic Republic	
	Investor PP(s) – Name(s):		Investor Party(ies)	
	Swedish Energy Agency		Sweden	
Applied methodology/ies:	Title:		No.:	Scope:
	Mitigation of greenhouse gas emissions from treatment of industrial wastewater		ACM0014, Version 4	13
Post Registration Changes:	Type of requested changes		Number of changes	Prior Approval required
	<input type="checkbox"/> Temporary deviations from the MP		-	<input type="checkbox"/>
	<input type="checkbox"/> Temporary deviations from the MM		-	<input type="checkbox"/>
	<input checked="" type="checkbox"/> Corrections that do not affect the project		1	<input type="checkbox"/>
	<input type="checkbox"/> Change to the start date of the crediting p.		-	<input type="checkbox"/>
	<input checked="" type="checkbox"/> Permanent changes from the MP		2	<input checked="" type="checkbox"/>
	<input type="checkbox"/> Permanent changes from the MM		-	<input type="checkbox"/>
	<input type="checkbox"/> Design changes to the project activity/PoA		-	<input type="checkbox"/>
<input type="checkbox"/> Changes specific to A/R		-	<input type="checkbox"/>	
Revised PDD:	Title:	Version:	Attached in TC:	Attached clean:
	TBEC LIG Biogas Project	05.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Assessment team / Technical Review and Final Approval	Assessment Team:		Technical review:	Final approval:
	Martin Saalmann Nattapon Vasasmith (TL)		Stefan Winter	Stefan Winter
Assessment Opinion:	<input checked="" type="checkbox"/>	The post registration changes require prior Approval by the Board		
	<input type="checkbox"/>	The post registration changes do not require prior Approval by the Board		
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	2015-09-01 TBEC_PRC.docx			25

Abbreviations

CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO₂	Carbon dioxide
CO_{2e}	Carbon dioxide equivalent
CP	Certification Program
DNA	Designated National Authority
EB	CDM Executive Board
GHG	Greenhouse gas(es)
PA	Project activity
PDD	Project Design Document
PoA	Programme of Activities
PRC	Post Registration Changes
QC/QA	Quality control/Quality assurance
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

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1 OBJECTIVE / SCOPE

TBEC (Lao) Sole Co., Ltd. Has commissioned the TÜV NORD JI/CDM Certification Program (CP) to assess post registration changes of the project

“TBEC LIG Biogas Project”

This report serves for all kind of post registration changes as defined in the PS.

This report serves as an annex to the Post-registration changes request form (CDM-PRC-FORM).

2 GENERAL CHARACTERISTICS

2.1 Project Characteristics

Essential data of the project is presented in the following Table 2-1.

Table 2-1: Project Characteristics

Item	Data
Project title	<i>TBEC LIG Biogas Project</i>
Project type	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> PoA
Project size	<input checked="" type="checkbox"/> Large Scale <input type="checkbox"/> Small Scale
Project Scope (according to UNFCCC sectoral scope numbers for CDM)	<input type="checkbox"/> 1 Energy Industries (renewable- /non-renewable sources)
	<input type="checkbox"/> 2 Energy distribution
	<input type="checkbox"/> 3 Energy demand
	<input type="checkbox"/> 4 Manufacturing industries
	<input type="checkbox"/> 5 Chemical industry
	<input type="checkbox"/> 6 Construction
	<input type="checkbox"/> 7 Transport
	<input type="checkbox"/> 8 Mining/Mineral production
	<input type="checkbox"/> 9 Metal production
	<input type="checkbox"/> 10 Fugitive emissions from fuels (solid, oil and gas)
	<input type="checkbox"/> 11 Fugitive emissions from production and consumption of halocarbons and hexafluoride
	<input type="checkbox"/> 12 Solvents use
	<input checked="" type="checkbox"/> 13 Waste handling and disposal
	<input type="checkbox"/> 14 Afforestation and Reforestation
	<input type="checkbox"/> 15 Agriculture
	<input type="checkbox"/> 16 Carbon capture and storage
Applied Methodology	ACM0014, Version 4: Mitigation of greenhouse gas emissions from treatment of industrial wastewater
Technical Area(s)	13.1: Solid Waste and Wastewater
CDM registration No.	8126
Crediting period	<input checked="" type="checkbox"/> Renewable Crediting Period (7 y) <input type="checkbox"/> Fixed Crediting Period (10 y)

For a detailed project description please refer to the registered PDD.

2.2 Overview of Post Registration Changes

Within this report post registration changes as listed in Table 2-2 are assessed.

Table 2-2: Overview Post Registration Changes

#	Applicable as of / from – to	Type of post registration change ¹⁾	Description
1	2012-11-16	CrPDD	The technical specifications of the dual fuel burner used have been changed and several minor issues have been corrected throughout the PDD.
2	2012-11-16	PCfrMP	The parameter for monitoring the Chemical Oxygen

#	Applicable as of / from – to	Type of post registration change ¹⁾	Description
			Demand of the sludge application to land ($COD_{sludge,LA,y}$, also $w_{sludge,COD,LA,m}$) is included in the monitoring plan.
3	2012-11-16	PCfrMP	The parameter for monitoring the temperature of flaring (T_{flare}) is included in the monitoring plan.

- ¹⁾
- TDfrMP : Temporary deviation from registered monitoring plan
 - TDfMM : Temporary deviation from the monitoring methodology
 - CrPDD : Corrections to the registered PDD
 - ChSD : Change to the start date of the crediting period
 - PCfrMP : Permanent changes from registered Monitoring Plan
 - PCfMM : Permanent changes from Monitoring Methodology
 - CoPD : Changes to the project design of a registered project activity / PoA
 - CstAR : Changes specific to afforestation or reforestation

2.3 Assessment team members and technical reviewers

On the basis of a competence analysis and individual availabilities a assessment team, consistent of one team leader and 1 additional team member, were appointed. Furthermore also the personnel for the technical review and the final approval were determined.

The list of involved personnel, the tasks assigned and the qualification status are summarized in the table 2-3 below.

Table 2-3: Involved Personnel

	Name	Company	Function ¹⁾	Qualification Status ²⁾	Scheme competence ³⁾	Technical competence ⁴⁾	Verification competence ⁵⁾	Host country Competence	On-site visit
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Martin Saalman	TN CERT	TL	SA	<input checked="" type="checkbox"/>	13.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Nattapon Vasasmith	TN Thailand	TM	A	<input checked="" type="checkbox"/>	13.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Stefan Winter	TN CERT	TR/ FA	SA	<input checked="" type="checkbox"/>	13.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-

¹⁾ TL: Team Leader; TM: Team Member, TR: Technical review; OT: Observer-Team, OR: Observer-TR; FA: Final approval

²⁾ GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert

³⁾ GHG auditor status (at least Assessor)

4) As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2, ...)

5) In case of verification projects

A) Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE

B) No team member

2.4 Assessment Steps

The *assessment of post registration changes* consisted of the following steps:

- Appointment of team members and technical reviewers
- A desk review of the registered and revised PDD^{/PDD/} submitted by the client and additional supporting documents
- On-Site assessment (if required)
- Background investigation and follow-up interviews with personnel of the project developer and its contractors,
- Resolution of corrective actions (CARs / CLs) (if any)
- Final reporting
- Technical review
- Final approval.

2.5 Review of Documents

The registered as well as the revised PDD and supporting background documents related to the project design and the post registration changes were reviewed.

2.6 Follow-up Interviews

The validation team has carried out interviews in order to assess the information included in the project documentation and to gain additional information regarding the compliance of the project with the relevant criteria applicable for CDM.

During validation the validation team has performed interviews to confirm selected information and to resolve issues identified in the document review. The main topics of the interviews are summarized in table 2-4.

Table 2-4: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
Project proponent representatives	- Details of the project validation and earlier

Interviewed Persons / Entities	Interview topics
	<div>verifications</div> <div><ul style="list-style-type: none">- Project history- Technical details of plant- Intended / implemented changes from the previous project design- Impact of changes on the additionality justification- Impact on the monitoring of the project- Editorial issues of the revised PDD</div>

A comprehensive list of all interviewed persons is part of section 7 'References'.

2.7 Resolution of Clarification and Corrective Action Requests

2.7.1 Definition

A **Corrective Action Request (CAR)** will be established where:

- mistakes have been made in assumptions, application of the methodology or the project documentation which will have a direct influence the project results,
- the requirements deemed relevant for validation of the intended / implemented changes,
- there is a risk that the changes cannot be approved by the UNFCCC or that emission reductions would not be able to be verified and certified after the implementation of the changes.

A **Clarification Request (CL)** will be issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

2.7.2 Assessment

After reviewing all relevant documents and taken all other relevant information into account, the assessment team issues all findings (in the course of a draft report, if applicable) and hands over the findings to the project proponent in order to respond on the issues raised and to revise the documentation accordingly.

The final reporting step starts after resolution of the raised CARs and CLs. In case the findings from CARs and CLs cannot be resolved by the project proponent or the proposed action related to the FARs raised cannot be assessed as adequate, no positive assessment opinion can be issued by the validation team.

The CAR(s) / CL(s) / FAR(s) are documented in the context of the respective chapters.

2.8 Technical review

Before submission of the final assessment report a technical review is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope this project falls under. The technical reviewer is not considered to be part of the verification team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the assessment opinion as prepared by the validation team leader may be confirmed or revised. Furthermore reporting improvements might be achieved.

2.9 Final approval

After successful technical review of the final report an overall (esp. procedural) assessment of the requested post registration changes will be carried out by a senior assessor located in the accredited premises of TÜV NORD.

Only after this step the notification or the report can be forwarded to the UNFCCC (in case of a positive validation opinion).

3 CHANGES THAT DO NOT AFFECT THE PROJECT DESIGN

3.1 Assessment of Changes

Requested Deviation / Change #1			
Type of change(s):	<input type="checkbox"/> Temporary Deviation from Monitoring Plan <input type="checkbox"/> Temporary Deviation from Monitoring Methodology <input checked="" type="checkbox"/> Corrections that do not affect the project design <input type="checkbox"/> Permanent Change from Monitoring Plan <input type="checkbox"/> Permanent Change from Monitoring Methodology <input type="checkbox"/> Changes specific to afforestation or reforestation		
A. Description of post registration change			
Start Date: Please provide the start date of the change	2012-11-16	End Date: Please provide the end date of the change, if applicable	N/A
Description: Please give a detailed description of the change(s)	During the site visit in the course of the first verification, the verification team checked the fuel burner, which is the recipient of the biogas from the project activity. It was observed that the specifications of the fuel burner do not match with the description in the registered PDD.		
B. Assessment of post registration change – Corrections			
Correctness: Please assess whether the corrected information (incl. ex-ante values) is an accurate reflection of actual project information.	The PP revised technical specification in section A.3. of the latest PDD version. The information provided is correct which could be verified during the site visit.		
MP/MM Compliance : Please check whether the corrected parameters are in accordance with the MM and/or MP.	The revised technical specification has no impact on the monitoring plan or the monitoring methodology. Since the fuel burner is not within the project boundary it has no impact on the emission reductions or additionality.		
Appendix 1 PS: Check whether the affect the design of the PA.	Due to the before mentioned justification the change has not effect on the design. Thus Appendix 1 applies.		
C. Revised PDD			
Rev. of PDD: Check whether the changes have been fully addressed in a revised PDD.	<input checked="" type="checkbox"/> The changes have correctly been reflected in the revised PDD. <input type="checkbox"/> A revision of the PDD is not required (in case of temp. changes). <input checked="" type="checkbox"/> The revised PDD has been forwarded in (i) track-change and (ii) clean version.		

Requested Deviation / Change #1

D. Prior Approval

Prior approval:

Assess whether the change requires prior approval of the board

- ☐ *The post registration change requires prior approval*
- ☒ *The post registration change does not require prior approval*

Requested Deviation / Change #2

- Type of change(s):
- ☐ *Temporary Deviation from Monitoring Plan*
 - ☐ *Temporary Deviation from Monitoring Methodology*
 - ☐ *Corrections that do not affect the project design*
 - ☒ *Permanent Change from Monitoring Plan*
 - ☐ *Permanent Change from Monitoring Methodology*
 - ☐ *Changes specific to afforestation or reforestation*

A. Description of post registration change

Start Date: Please provide the start date of the change	2012-11-16	End Date: Please provide the end date of the change, if applicable	N/A
Description: Please give a detailed description of the change(s)	During the site visit in the course of the first verification, the verification team observed that the monitoring parameter for the chemical oxygen demand of the applied land ($COD_{sludge,LA,y}$, also $w_{sludge,COD,LA,m}$) was not included in the monitoring plan.		

B. Assessment of post registration change – Permanent changes from MP or MM

MM compliance: Please check in case of changes to the registered MP, whether they are in compliance with the MM.	The PP revised section B.7.1 incorporating the missed out parameter. The value applied is 0. This is reasonable since sludge has not been discharged from the last lagoon during the monitoring period and it is also not envisaged that this will happen. Since the project consists of 12 lagoons, the project operator expects that the sludge will remain in the ponds.
Later version of MM: Please check in cases where compliance with a later version of the MM is demonstrated that the conservativeness of the monitoring and verification is not affected.	The PP utilizes the tool which was applicable at the time of registration. A later version is not applied. Hence, no assessment is conducted here.

Requested Deviation / Change #2

Accuracy: Please give a detailed assessment whether the change is likely to lead to a reduction in the accuracy of the ER calculation.	Reduction in the accuracy of monitoring the parameter is highly unlikely since the requirements of the methodology are met.
Conservative-ness: Please give a detailed assessment whether conservative assumptions or discount factors have been applied to ensure that ER will not be overestimated.	The value applied in the ex-ante determination is 0. During site visit it could verify that this value is appropriate. In the first monitoring period no sludge has been discharged from the last lagoon. During interview with the project operator it could be confirmed that discharge is not expected since the volume of the 12 lagoons is sufficient to collect all sludge for the coming years. However, since the parameter will be monitored it will be considered in case necessary.
Appendix 1 PS: Check if the changes fall under one of the scenarios of appendix 1 of the PS.	The criteria listed in Appendix 1 of the PS do not apply to the before mentioned change since the monitoring parameter has been neglected at registration stage and shall be included therefore.
C. Revised PDD	
Rev. of PDD: Check whether the changes have been fully addressed in a revised PDD.	<input checked="" type="checkbox"/> The changes have correctly been reflected in the revised PDD. <input type="checkbox"/> A revision of the PDD is not required (in case of temp. changes). <input checked="" type="checkbox"/> The revised PDD has been forwarded in (i) track-change and (ii) clean version.
D. Prior Approval	
Prior approval: Assess whether the change requires prior approval of the board	<input checked="" type="checkbox"/> <i>The post registration change requires prior approval</i> <input type="checkbox"/> <i>The post registration change does not require prior approval</i>

Requested Deviation / Change #3

Type of change(s):

- ☐ Temporary Deviation from Monitoring Plan
- ☐ Temporary Deviation from Monitoring Methodology
- ☐ Corrections that do not affect the project design
- ☒ Permanent Change from Monitoring Plan
- ☐ Permanent Change from Monitoring Methodology
- ☐ Changes specific to afforestation or reforestation

A. Description of post registration change

Start Date: Please provide the start date of the change	2012-11-16	End Date: Please provide the end date of the change, if applicable	N/A
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Requested Deviation / Change #3

Description: Please give a detailed description of the change(s)	During the site visit in the course of the first verification, the verification team observed that the monitoring parameter for estimating flare temperature (T_{flare}) was not included in the monitoring plan.
B. Assessment of post registration change – Permanent changes from MP or MM	
MM compliance: Please check in case of changes to the registered MP, whether they are in compliance with the MM.	The methodology on page 19 refers to the “Tool to determine project emissions from flaring gases containing methane”. This tool stipulates that the temperature of the flare shall be monitored. The PP revised section B.7.1 incorporating the missed out parameter.
Later version of MM: Please check in cases where compliance with a later version of the MM is demonstrated that the conservativeness of the monitoring and verification is not affected.	The PP utilizes the tool which was applicable at the time of registration. A later version is not applied. Hence, no assessment is conducted here.
Accuracy: Please give a detailed assessment whether the change is likely to lead to a reduction in the accuracy of the ER calculation.	The change has no impact on the accuracy. The parameter was neglected at registration stage even though it should have been considered.
Conservativeness: Please give a detailed assessment whether conservative assumptions or discount factors have been applied to ensure that ER will not be overestimated.	The monitoring parameter strictly follows the requirements of the tool. Hence, it is predictable that conservative values will be applied.
Appendix 1 PS: Check if the changes fall under one of the scenarios of appendix 1 of the PS.	The criteria listed in Appendix 1 of the PS do not apply to the before mentioned change since the monitoring parameter has been neglected at registration stage and shall be included therefore.
C. Revised PDD	
Rev. of PDD: Check whether the changes have been fully addressed in a revised PDD.	<input checked="" type="checkbox"/> The changes have correctly been reflected in the revised PDD. <input type="checkbox"/> A revision of the PDD is not required (in case of temp. changes). <input checked="" type="checkbox"/> The revised PDD has been forwarded in (i) track-change and (ii) clean version.
D. Prior Approval	
Prior approval: Assess whether the change requires prior approval of the board	<input checked="" type="checkbox"/> <i>The post registration change requires prior approval</i> <input type="checkbox"/> <i>The post registration change does not require prior approval</i>

3.2 Related Findings

The following table(s) include all raised CARs and CLs and the assessments of the same by the assessment team.

Finding	A1	
Classification	<input type="checkbox"/> CAR	<input type="checkbox"/> CL
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>The parameter COD_{sludge,LA,y} is named different in the monitoring section of the methodology.</p> <p>The measurement procedure is different to the methodology.</p> <p>Revision is requested.</p>	
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>1. The parameter COD_{sludge,LA,y} has been corrected the name to be 'w_{COD,sludge,LA,y}' to be consistent with the methodology.</p> <p>2. The measurement procedure has been revised to be consistent with the methodology.</p>	
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>The revision has been conducted. The content is in line with the methodology. This has been checked by the validation team.</p>	
Conclusion <i>Tick the appropriate checkbox</i>	<p><input type="checkbox"/> Additional action should be taken (finding remains open)</p> <p><input checked="" type="checkbox"/> The finding is closed</p>	

Finding	A2	
Classification	<input type="checkbox"/> CAR	<input type="checkbox"/> CL
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>The description in values applied is not fully in line with the requirements in the methodology.</p> <p>Revision is requested.</p>	
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>Value applied as '0' since it is expected that there will be no sludge removal for the whole crediting period.</p> <p>Moreover, the explanation in the 'additional comment' of parameter 'w_{COD,sludge,LA,y}' has been added to clearly explain why the zero value is applied.</p>	
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	<p>Ok, the information provided is acceptable and could be verified during the site visit and by means of interview. Correction in the PDD is deemed adequate.</p>	



Finding	A2
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed

4 CHANGE TO THE START DATE OF THE CREDITING PERIOD

The post registration changes do not fall under this category.

5 CHANGES TO THE PROJECT / PROGRAMME DESIGN

The post registration changes do not fall under this category.

6 SUMMARY OF ASSESSMENT OPINIONS

The below listed changes have occurred after the registration of the project / PoA.

<i>Type of Change occurred</i>	<i>Total No. of changes</i>	<i>No. of changes which require prior approval</i>
<input type="checkbox"/> Temporary deviations from the MP		
<input type="checkbox"/> Temporary deviations from the MM		
<input checked="" type="checkbox"/> Corrections that do not affect the project	1	0
<input type="checkbox"/> Change to the start date of the crediting p.		
<input checked="" type="checkbox"/> Permanent changes from the MP	2	2
<input type="checkbox"/> Permanent changes from the MM		
<input type="checkbox"/> Design changes to the project activity / PoA		
<input type="checkbox"/> Changes specific to AR projects		

The above listed post registration changes require prior approval of the Board.

Essen, 2015-09-01



Martin Saalmann
TÜV NORD JI/CDM CP
Assessment Team Leader

Essen, 2015-09-01



Stefan Winter
TÜV NORD JI/CDM CP
Final Approval

7 REFERENCES

Table 7-1: Documents provided by the project participant

Reference	Document
/PDD1/	Project Design Document named “TBEC LIG Biogas Project” Version 04 registered 2012-11-16
/PDD2/	Revised PDD reflecting the intended / implemented changes, Version 05.1, dated 2015-08-13

Table 7-2: Background investigation and assessment documents

Reference	Document
/ACM14/	ACM0014, Version 4: Mitigation of greenhouse gas emissions from treatment of industrial wastewater
/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)
/PDD-T/	Project Design Document Form (F-CDM_PDD) – Version 6.0
/PS/	Project Standard (Version 7)
/FT/	Tool to determine project emissions from flaring gases containing methane (Version 1)
/VVS/	CDM Validation and Verification Standard (Version 7)

Table 7-3: Websites used

Reference	Link	Organisation
/unfccc/	http://cdm.unfccc.int	UNFCCC

Table 7-4: List of interviewed persons

Reference	Mol ¹		Name	Organisation / Function
/IM01/	V, E	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Pasu Sirisareewan	TBEC, CDM Officer

¹⁾ Means of Interview: (Telephone, E-Mail, Visit)

APPENDIX

- A1:** Assessment of Financial Parameters
- A2:** Assessment of Barrier analysis
- A3:** Competence statements of involved personnel

APPENDIX 1: ASSESSMENT OF FINANCIAL PARAMETERS

Table A-1: Assessment of Financial Parameters (VVS, §§ 120, 121 / in case financial parameters stem from FSR §122)

<input checked="" type="checkbox"/>	Not applicable					
<input type="checkbox"/>	Assessment of all financial parameters see below					
Parameter	Value applied	Unit	Source of Information (please indicate document and page)	Reference	DOE ASSESSMENT	
					Correctness of value applied	Comment
				//	<input type="checkbox"/>	
				//	<input type="checkbox"/>	
				//	<input type="checkbox"/>	
				//	<input type="checkbox"/>	
				//	<input type="checkbox"/>	
				//	<input type="checkbox"/>	

APPENDIX 2: ASSESSMENT OF BARRIER ANALYSIS

Table A-2: Assessment of Barrier Analysis (VVS, §§ 124-127)

<input checked="" type="checkbox"/>		Not applicable		
<input type="checkbox"/>		Assessment of barriers see below		
Kind of Barrier (invest, tech, other)	Description of Barrier	Evidence used	Assessment of validation team	
			Appropriateness of information source	Explanation of final result
			<input checked="" type="checkbox"/>	
			<input checked="" type="checkbox"/>	
			<input checked="" type="checkbox"/>	
			<input checked="" type="checkbox"/>	
			<input checked="" type="checkbox"/>	
			<input checked="" type="checkbox"/>	
			<input checked="" type="checkbox"/>	



APPENDIX 3: STATEMENTS OF COMPETENCE OF INVOLVED PERSONNEL

Statement of Competence
Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Martin Saalmann

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2015-11-15
J1	Senior Assessor Technical Reviewer	2015-11-15
VCS / ISO 14064-2	Senior Assessor Technical Reviewer	2015-11-15

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewables
13.1	Solid waste and wastewater

022 – Rev. 5, Date: 2015-05-01

022_S01-VA060-F20_2015-05-01_rev5.doc

S01-VA060-F20 rev3 / 2012-10-25

Statement of Competence
Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Stefan Winter

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2017-07-27
VCS	Senior Assessor (Validation, Verification) Technical Reviewer	2017-07-27

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.1	Thermal energy generation
1.2	Renewables
2.1	Energy distribution
3.1	Energy demand
4.1	Cement and lime production
4.2	Paper
5.2	Caprolactam, nitric and adipic acid
9.1	Aluminium and magnesium production
9.2	Iron, steel and Ferro-alloy production
13.1	Solid waste and wastewater
13.2	Manure

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163_S01-VA060-F20_2015-01-05_rev4.doc

S01-VA060-F20 rev3 / 2012-10-25

Statement of Competence
Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Vasasmith Nattapon

SCHEME	STATUS	VALID UNTIL
CDM	Assessor (Validation, Verification)	2017-11-01
VCS	Assessor	2017-11-01

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
13.1	Waste handling and disposal

163 – Rev. 4, Date: 2015-01-01

163_S01-VA060-F20_2015-01-01_rev4.doc

S01-VA060-F20 rev3 / 2012-10-25